



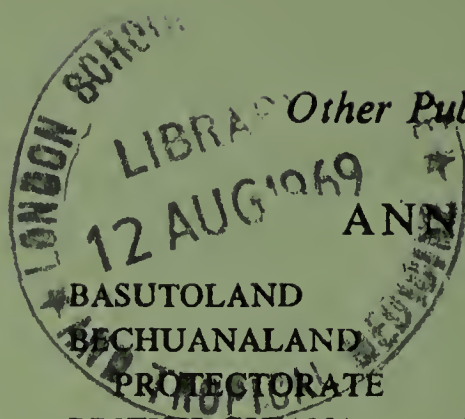
Sarawak

1956



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Anna Photo Co.

Temenggong Koh anak Jubang, M.B.E., Q.M.C., Paramount Chief of the Iban until his retirement in 1955. Temenggong Koh died on 4th November, 1956

SARAWAK

ANNUAL REPORT

1956

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SARAWAK REPORT

1956

ERRATA

Page 28. Sub-section. Tariff. Substitute

Tariff

Alteration to the Customs Tariffs during the year was made in December when the import rates on intoxicating liquors and tobacco were increased by about $33\frac{1}{3}\%$ and 30% respectively. Duty on earth-moving equipment was changed to 15% general and nil preferential.

Page 46. Para. 4. Line 5.

For favourably read unfavourably.

Facing page 79. Substitute the following for the caption at the foot of the illustration.

Anti-malaria team spraying dieldrin inside a longhouse in the First Division under the World Health Organisation scheme which began work in that division in 1955; the long, arduous and successful campaign continues in the Fourth Division

The outline map of SARAWAK referred to on page 34, the sketch map showing SARAWAK GEOLOGY and the map SARAWAK AND BRUNEI are at the end of the book.

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1957

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PART I

I

GENERAL REVIEW OF THE YEAR

1956 was a year of steady progress on many fronts, and pride of place must undoubtedly be given to the granting by Her Majesty the Queen of a new Constitution for Sarawak and to important developments in the field of local government.

In August an Order-in-Council was made and Letters Patent and Royal Instructions were promulgated which between them contained the new Sarawak Constitution. This Constitution will come into force on a day to be appointed by His Excellency the Governor. It provides for a new legislative body which will consist of forty-five members of whom twenty-four will be elected unofficials, fourteen will be *ex-officio*, four nominated to represent interests which the Governor considers inadequately represented, and the remaining three will be standing members. The new Supreme or Executive Council will consist of three *ex-officio* members, namely the Chief Secretary, the Financial Secretary and the Attorney-General, two nominated members and five elected members who shall be persons who are elected, nominated or standing members of the Legislative Council. Councils representing the five Administrative Divisions of Sarawak, or Divisional Advisory Councils as they are designated, will elect twenty-one of the twenty-four unofficial members, and the remaining three members will be elected by the Kuching Municipal Council, the Sibu Urban District Council and the Miri Urban District Council. In order to qualify for election as an unofficial member a person must be, amongst other things, over twenty-one years of age and a British subject or a British protected person, and must, with certain exceptions, have resided for at least seven out of the last ten years in Sarawak.

Legislation has been introduced this year providing for the mechanics of bringing the new Constitution into force. The most important of these is the Electoral Law drafted under the New Constitution which provides for the constitution of Divisional Advisory Councils and for the election of the unofficial members



of Legislative Council or Council Negri. Provision in the Electoral Law has also been made for the election of members of Divisional Advisory Councils by District and other local councils. Most District and other local councils will elect the people who in turn will elect from their own members all the unofficial members of the Legislative Council except the three unofficial members who will be elected direct by the Kuching Municipal Council and the Sibü and Miri Urban District Councils. This New Constitution which Her Majesty has been graciously pleased to grant marks a tremendously important step forward in the democratic progress of Sarawak towards the ultimate goal of self-government.

Development of Local Government during 1956 has been encouraging. The Miri Urban District Council and the Binatang District Council were constituted and preparations went ahead for the formation of new Mixed Authorities in areas as yet without their local administration. What has been particularly satisfying has been the conversion of various racial authorities to Mixed Authorities. The Batang Kemena and Tātau Racial Authorities combined to form the Mixed Bintulu District Council. Similarly considerable progress has been made in the conversion of the Upper Sadong, Batang Lupar, Saribas and Baram Authorities. The Mukah District Council is being extended to cover Balingian, Oya and Dalat and it is hoped that all these new or extended authorities will come into being on 1st January, 1957, thus affording very nearly the whole population of Sarawak their own local administration and doing away altogether with racial authorities.

On November 4th the first Kuching Municipal Council elections were held—the first election by secret ballot held in Sarawak—and the results are both gratifying and impressive. No less than 86.66 per cent of the electorate voted. Observers from Sibü, Miri, Sarikei and North Borneo were present and the now proved election organisation will be of great assistance to other councils, such as the Sibü and Miri Urban Councils.

Financially 1956 although a satisfactory year compared unfavourably with 1955. There was a marked fall in the prices of Sarawak's principal exports—rubber, pepper and timber, and a consequent decline in the value of external trade. This showed a fall of some \$22 million from the 1955 level. In 1955 exports at f.o.b. prices were worth \$178 million and imports \$150 million,

giving a favourable balance of visible trade of \$28 million. This year the value of exports amounted to about \$159 million and imports to about \$147 million, leaving a reduced but still favourable balance of \$12 million. This decline in trade was reflected in the reduced rate of growth of Sarawak's monetary resources. The currency circulation at the end of October was about \$50 $\frac{3}{4}$ million. Last year at the same time it was just under \$49 $\frac{1}{2}$ million. To this increase of \$1 $\frac{1}{4}$ million must be added an increase during the same period of the deposits in the principal banks of just over \$3 million. In 1956, therefore, the monetary resources increased by only \$4 $\frac{1}{4}$ million as compared with an increase of \$14 million in the corresponding period in 1955. At the end of the year the free balance stood at just over \$51 million.

There were important developments in most branches of the public service. In the field of education the main development during the last twelve months has been the introduction of the new system of financing schools. A grant code was approved by the Supreme Council in October, 1955 and managements were at once invited to apply for aid under these regulations. By the end of the year almost every school in the country had applied for the new grants. It seems to be mainly in consequence of the new system of grants that there was in 1956 a very large increase in the school population: there were over 10,000 more children in Sarawak schools than in 1955. School managements attribute this rise in numbers largely to the fact that the new code has reduced fees in the majority of schools and enabled local authorities and other agencies to open up more schools. Public expenditure on education has greatly increased. In 1955 the total expenditure under annually recurrent heads amounted to less than \$1 $\frac{1}{2}$ million. In 1956 it exceeded \$5 $\frac{1}{2}$ million of which by far the greater part consisted of grants to aided schools.

The work of the Medical Department continued to expand. The building of the new mental hospital, the first of its kind in Borneo, progressed well. In Sibu the extension to the hospital at a cost of nearly \$1 million will increase accommodation there to a total of nearly 350 beds. At Bau, Bintulu, Miri and Betong dispensaries were enlarged while a new dispensary was opened at Julau and a travelling dispensary started at Belaga. The total number of leprosy patients at the Sir Charles Brooke Memorial

Settlement is decreasing and improvements to existing accommodation and to the water and electricity supplies are well under way. The training of midwives has been taken very seriously by local authorities throughout the country. Seventy midwives, most of whom were recruited by local authorities, were in training in Kuching in 1956. It is gratifying to record that the Medical Department's country-wide fight against malaria proceeded with increased vigour and success.

In the sphere of agriculture the most important development was the revision of the terms of the Rubber Planting Scheme, providing for a subsidy of \$200 and \$450 per acre respectively for the planting of new land and the replanting of old gardens. The response by planters has been most encouraging. In September a new veterinary laboratory was opened in Kuching to provide the public with more intensified and extended veterinary services.

During 1956 the Department of Forestry completed work on the constitution of the planned great belt of forest protecting the headwaters of all rivers from the Oya to the Kemena, and the total area of this stretch of protected forest is approximately 15,000 square miles. The country's permanent forest estate was augmented by nearly 500 square miles during the year and a further 190 square miles has been brought under preliminary notification. The National Parks Ordinance came into force.

An event of importance in the Land and Survey Department was the compilation of a Land Code Bill.

The certainty that air communication is going to play an increasingly important part in transportation throughout the country was borne out by passenger, mail and freight movement statistics during the year. Kuching and Sibü passenger figures rose by 2,433 and 2,943 over the 1955 figures, while mail and freight figures show a minimum increase of 20% and Sibü outgoing mail figures of about 200%. At Simanggang the construction of an airstrip is well under way, while at Saratok a preliminary survey was carried out in August. At Mukah a site for an airstrip was selected.

The telecommunications development plan made exceptional progress. Since 1952 about \$12 million has been allocated to telecommunication development and it is estimated that the value of the services given in 1956 approached \$1,000,000.

Radio Sarawak's activities covered ever widening fields and a good deal of planning for the future was done. In March week day noon transmissions, including world news, were started, and programmes in Hakka and Foochow were produced for the first time. The short wave transmission was considerably strengthened and locally produced programmes increased in number and quality. The purchase of one of the most modern and efficient outside broadcasting units proved of immense value.

The appointment of an experienced journalist as press officer in the Information Service made possible a large increase in the flow to the members of the public of information about the Government's policy and work. A new weekly publication *Sarawak by the Week*, begun in August, filled the need for a Sarawak-wide weekly Government news publication. It has been well received both here and overseas.

The high standard of the work of the Printing Office has continued during 1956. Most of the staff have received intensive training and can now be classed as skilled craftsmen. It is a measure of the Department's versatility and efficiency that it is now possible for the entire setting and printing of the Revised Edition of the Laws of Sarawak to be carried out by the Government Printer, a task which can be accomplished only by first-rate printers and machines.

The building programme of the Public Works Department was hindered by excessively high tenders which necessitated prolonged negotiation or revision of schemes before work could be started. Generally building costs have risen and as contractors throughout the country have reached the limit of their building capacity prices are being forced higher and higher. It is clear that in future Government will have to undertake more work by direct labour. Tenders received for the construction of the Serian/Simanggang Road, ninety miles of the country's main trunk road, were considered too high and it was decided that the Government should undertake this work by direct labour. A

great improvement was made in the output of stone from Sebuyau Quarry and the new full-scale plant began to arrive. A new quarry for the Kuching area was opened to replace the old one at the 7th Mile. The main works of the Batu Kitang Water Plant were completed by the end of the year, and the new supply will be available early in 1957. Meanwhile steady progress was made on the long-term programme of renewals and extension of mains in the Kuching area. At Simanggang, Sarikei and Binatang satisfactory results were obtained from the bore holes drilled, and an adequate water supply should shortly be available in all these places.

The Geological Survey Department continued to prepare maps which are used in soil surveys, prospecting and engineering projects. The mineral resources map of British Borneo was published and the regional geological map of the whole of Borneo is being compiled. A license to work the Semetan aluminium ore deposits was granted to a competent mining concern, and if tests and marks are favourable production should start in 1957.

Sarawak Oilfields Limited continued to prospect for oil, concentrating its efforts in the shallow seas of the Fourth Division coast, and after extensive geophysical surveys had been made work was started at Siwa, about 8 miles offshore. Exploration wells were also drilled in the Bilingian and Tatau river valleys in order to add to the knowledge of regional geology.

Although the morale and efficiency of the Sarawak Constabulary continued to improve during the year, lack of education amongst members of the rank and file means that standards of professional knowledge and competence have still not reached an acceptable level. A concentrated literacy campaign was launched with the help of the Education Department, and there are now only 127 men in the whole force who cannot read and write romanised Malay. Two Gazetted Officers and one Inspector went on training courses to the United Kingdom, and the Inspector distinguished himself by winning the Baton of Honour at the Hendon Metropolitan Police Training School. At the Kuching Police Training School there are now 218 men including forty-nine Brunei recruits under training, but although determined efforts have been made to attract Chinese to the rank and file, unfortunately only a handful have joined.

The new Cathedral of St. Thomas, Kuching, consecrated in June, 1956, and, by its side, the old Cathedral, consecrated in 1851



Kuching from the tower of the new St. Thomas's Cathedral, completed in 1956. To the left centre is the Kuching Municipal Council's office; next to it the Central Police Station; behind, the new tall white Lanka Building, and to the right, the Secretariat. In the left background, near the Sarawak River, is the Mosque



Counting ballot
papers after vot-
ing at the first
Kuching Muncipi-
pal Council
election, held in
November 1956





The Council Negri in session, December 1956. His Excellency the Governor is addressing the meeting, and members of the Malayan Film Unit are taking "shots" for their colour film on Sarawak



The strength of the Sarawak Rangers still serving in Malaya is 272 men. It is very creditable to report that six of our Rangers were awarded Commander-in-Chief certificates for gallant and distinguished service, and one was Mentioned-in-Despatches.

At Budu in the Kalaka District the work of community development went ahead well and in certain Sea Dayak areas of the Second and Third Divisions surveys have been made with a view to emulating Budu's methods in other places. The Budu scheme covers thirty-eight longhouses and a population of about 5,000 people. During the year plans were laid for new community development centres in the Ulu Sarawak Kiri for Land Dayaks and in the Ulu Baram for Kayan, Kenyah and Kelabit people. They are being started in response to local demand, and both will have men of experience at their head for a start, but their ultimate success is largely dependent on sustained local self-help.

The activities of the Social Welfare Council during 1956 were very varied. The ice factory and labourers lines at Reservoir Road, Kuching, were purchased for \$40,000. The Council then contributed sums for alterations to these buildings and they have now become the Youth Council Headquarters and the Red Cross Transit Hostel. A home for old ladies has been established behind the Salvation Army Home. The Council's activities were not confined to Kuching. In all parts of Sarawak there are volunteer committees which collect funds and these committees are subsidized by central funds from the Council. The generous services of these unpaid workers were well recognised by Her Majesty the Queen in Her Majesty's Birthday Honours list. Government has now recognised fully the value of the Council's services and has agreed that the Council should be responsible both financially and otherwise for practically the whole of Sarawak's welfare activities.

During 1956 the Sarawak Museum assisted in the organisation of, and attached staff to, several expeditions which added considerably to the knowledge of the country and her Museum collections. The new building for the Museum office, to house the reference collection and provide study facilities, was completed early in the year and it will offer very useful amenities for students and amateurs interested in the study of Sarawak

On November 4th there died at his longhouse near Kapit in the Third Division Temonggong Koh anak Jubang. Temonggong Koh, aged about eighty-six, had been Paramount Chief of all the Ibans—the Sea Dayaks—for many years until his retirement in 1955. He was made a Penghulu by the Second Rajah in 1913. In 1947 he was awarded the M.B.E. and in 1953 the Queen's Medal for Chiefs, and when he died—and long before—he was universally held in high respect as the 'Grand Old Man' of Sarawak.

On June 9, the new Anglican Cathedral of St. Thomas's in Kuching, the mother church of the Diocese of Borneo, was consecrated by the present Bishop, the Right Reverend Nigel Edmund Cornwall, C.B.E., assisted by the Archbishop of Brisbane and the Provost of Kuching. At the ceremony the civil government was officially represented by His Excellency the Officer Administering the Government, Mr. J. H. Ellis, C.M.G., the Resident, First Division, and the Chairman of the Kuching Municipal Council. Nearly all the clergy and lay workers of the Diocese (which covers Sarawak, North Borneo and Brunei) attended, together with distinguished representatives from the Dioceses of the Philippines, Hong Kong and Singapore, and from the Society for the Propagation of the Gospel. The old Cathedral, built all of wood, which had stood and endured for a century in the heart of Kuching, was forthwith taken down and re-built in the village of Sungei Tanju near Kuching, where there was great need for a church.

During the year Sarawak had the pleasure and privilege of welcoming a number of distinguished guests. Among these were His Excellency Sir Robert Scott, K.C.M.G., the Commissioner-General for the United Kingdom in South East Asia, His Highness the Sultan of Brunei, Sir Omar Ali Saifuddin, K.C.M.G., and His Excellency Sir Roland Turnbull, K.C.M.G., the Governor of North Borneo, all of whom, with their advisers, attended a meeting of the British Borneo Territories Inter-Territorial Conference in Kuching in September. Other distinguished visitors included the Commander-in-Chief, Far Eastern Station, Vice-Admiral Sir Alan Scott-Moncrieff, K.C.B., and Lady Scott-Moncrieff; the Commander-in-Chief, Far Eastern Air Force, Air Marshal Sir Francis Fressanges, K.B.E., and Lady Fressanges; Sir Berkeley Gage, K.C.M.G., H.M. Ambassador to Thailand, and Lady Gage, and Mr. L. G. Holliday, C.M.G., H.M. Ambassador to Laos; Rear-

Admiral E. H. Shattock, C.B. the retiring Flag Officer, Malayan Area, and his successor, Read-Admiral G. A. Thring, D.S.O.; the Rt. Hon. Geoffrey Lloyd, P.C., M.P.; Mr. Vernon Bartlett, C.B.E., and Mr. Raymond Mortimer, C.B.E.; and many others.

The Governor of Sarawak, Sir Anthony Abell, K.C.M.G. went on leave in May. During his absence the Colony was administered by the Honourable Mr. J. H. Ellis, C.M.G.

DEVELOPMENT

In 1954 a new Development Plan for the period 1955-1960 was announced and approved by Council Negri at its meeting held in August of that year. This Development Plan, Sarawak's third since 1947, reviewed progress achieved during the seven years of planned development and outlined the programme for the next six years beginning in 1955. It is not an entirely new plan but a revision and extension of previous plans with the aims and objects modified to meet changing conditions.

Progress achieved in development work is touched on in several paragraphs in this chapter and in subsequent chapters of this Report. A separate Report on Development is also published annually by the Development Board. In general it may be said that because of difficulties of staffing, development is not proceeding as quickly as had been hoped. While Estimated Expenditure in 1956 amounted to \$34,098,856 in fact it only proved possible to spend \$23,616,455.

Expenditure under the Development Plan is given in detail in an Appendix to this Report and may be summarised as follows:—

	<i>Colonial Development & Welfare Funds</i>	<i>Sarawak Funds</i>	<i>Total</i>
	\$	\$	\$
Actual Expenditure 1954	9,131,277	43,376,206	52,507,483
Actual Expenditure 1955	619,247	12,804,086	13,423,333
Actual Expenditure 1956	1,248,338	18,704,169	19,952,507
Estimated Expen- diture 1957	1,136,793	33,060,593	34,197,386

Development Expenditure is being increasingly met from Sarawak's own funds.

The development programme for 1955-1960 calls for expenditure of approximately \$100 millions. Of this total sum communications schemes amount to about \$54 millions or 54% of the development programme.

PART II

I

POPULATION

THE main native groups in Sarawak are Sea Dayak (or Iban), Malay, Melanau, Land Dayak, and a number of smaller groups comprising Kayans, Kenyahs, Bisayahs, Kedayans, Kelabits, Muruts, and others. The non-native races include Europeans, Chinese, Indians and Javanese.

The following table shows the number of each group in the 1947 census, the latest to be taken

<i>Cultural group</i>	<i>Population</i>	<i>Percentage of total population</i>
Sea Dayak	190,326	34.8%
Chinese	145,158	26.6%
Malay	97,469	17.9%
Land Dayak	42,195	7.7%
Melanau	35,560	6.5%
Other Indigenous	29,867	5.5%
Other Non-Indigenous Asian	5,119	1.0%
European	691	0.1%
	<hr/> 546,385 <hr/>	<hr/> 100.0% <hr/>

The natives of Sarawak form 72.4% of the population. The Sea Dayaks are the largest and probably the most homogeneous group. Very strong local variations appear in the Sea Dayak language, but it is distinctive and well-recognised as a native language of Sarawak.

The Land Dayaks are mainly in the First Division. The legendary home of these people is believed by many of them to be Gunong Sungkong in West Borneo, and a close relationship exists with people of the same culture in nearby villages in West Borneo. This kinship leads to some movement across the border.

The Malays are of mixed stock and probably the most recent arrivals of all the indigenous peoples. They are bound by the common tie of Islam and have been powerful along the coast for centuries. Their domination has been intermittent and at times must have been almost non-existent, but it was sufficiently effective to leave an impression upon the pagan tribes of the seaboard.

Numerically the Chinese are the second most important group; economically they take first place and culturally their influence is very strong. There is substantial evidence that Chinese have lived in parts of Sarawak for many hundreds of years.

The Melanaus are found in the coastal areas of the Third and Fourth Divisions, and are the principal cultivators of sago. They are intermediate between the Malays and the pagan groups, in that some of them retain their pagan customs and habits, while others have become Muslims.

The Kayans and Kenyahs live on the Baram River and the headwaters of the Rejang and Balui. They are thought to have come from the Batang Kayan across the Indonesian border.

Other indigenous races are the Muruts, Bisayahs, Kelabits, nomadic Punans, Kedayans, and Dusuns from North Borneo.

The estimated population at the 30th June 1956 was 626,223, made up as follows:—

Sea Dayak	197,502
Chinese	186,039
Malay and Melanau	153,501
Land Dayak	48,523
Other Indigenous	32,134
Other Non-Indigenous	8,524
(including 2,038 Europeans)	
	<hr/>
	626,223
	<hr/>

These figures are based on the 1947 Census together with the births and deaths registered since then and the volume of migration to and from the country.

Migration to and from Sarawak during 1956 was as follows:—

	<i>Immigrants</i>	<i>Emigrants</i>
Chinese	7,768	6,630
European	2,527	2,474
Malay	1,466	1,273
Melanau	7	4
Sea Dayak	553	528
Land Dayak	13	5
Other Indigenous	56	14
Other Asian	494	856
	<hr/> 13,339 <hr/>	<hr/> 11,784 <hr/>

II

OCCUPATION, WAGES AND LABOUR ORGANISATION

MOST of the people are farmers. The native peoples are nearly all padi farmers but they also grow rubber or sago and collect from the jungle rattan, jelutong and damar (resin). Chinese farmers rely on rubber and pepper. The average price for rubber was high and the increased activity of 1955 was maintained. Pepper, though world prices were low, nevertheless increased its production to the highest recorded for 30 years, despite the fear of disease and the effect of heavy rains.

Malays and Melanaus work in the sago and timber industries, and Dayaks as log extractors in the forests, on the roads and in the oilfields.

Because of a reduction in demand, lack of shipping space, and financial and economic conditions generally, production in the timber industry was about 30% below 1955. The reduction of labour (some 10%) thus caused was easily absorbed in padi growing. About five hundred Sea Dayaks from the Second and Third Divisions of Sarawak work in the oilfields of Seria in Brunei and to avoid too great a disturbance in their longhouse economy recruitment is for one year only. Workers must undertake to send monthly remittances to their dependants.

Building, both private and under the Government Development Plan, dockwork, and the distribution of imported goods occupied many skilled and unskilled workers.

Entry permits for skilled workers are granted for limited periods only and to enable the completion of a specified task and the training of a local worker in the same project.

There is no unemployment. Continued activity in rubber and the increased production of pepper offset to some extent the decrease in timber production, and the depressed sago market. Any unemployed from the timber and sago industries transferred to padi growing.

Sarawak Oilfields Limited are the largest employer in Sarawak. In the field and the refinery at Lutong they have a senior staff of seventy-one, a regional staff of 306, and 812 skilled and 859 unskilled workers, among whom Malays, Chinese, Dayaks and Indians are roughly in the proportion 17-8-5-1. A considerable number of skilled and unskilled workers were employed by the company's contractors.

Rates of pay of the oil company's workers ranged from a minimum of \$4 per day for unskilled workers to \$10.00 for the highest skilled artisan. There is a temporary cost of living allowance of 10% for bachelors and 15% for married workers; outstation allowances where living accommodation, amenities etc. are below standard; a driving allowance; and allowances for work of an exceptionally dirty nature. Weekly hours of work are 43½ and overtime pay is 1½ times the ordinary rate. Two weeks' annual leave with pay is given and, for sickness, full pay for the first two weeks and half pay for the next ten weeks.

The company progressed with its labour force housing schemes and continued to improve their health and medical services. Clubs, playing fields, cinemas and free transport are provided. Annually elected representatives meet the management each month to discuss working conditions, disputes, grievances and other matters affecting mutual relations and understanding. There are Malay, Chinese, Indian and Iban representatives chosen roughly in proportion to the racial strengths. Subjects discussed during the year included housing, transport, increased shift rates, medical and health, leave, retirement gratuities, grading of jobs, wages and allowances, provision of safety boots, household facilities and ferry services. There is an apprentice training scheme at Lutong, designed to train boys on the job and in the workshops.

There are limited training schemes in Government Departments. The Agricultural Department has in training twelve men as Agricultural Assistants at the Staff Training College in Kuching. The Public Works Department has over a hundred men in training and the Brooke Dockyard sixteen apprentices working on the repair and overhaul of marine diesel engines and ships' auxiliary machinery.

An eight-hour day and six-day week is provided by the Labour Ordinance.

Wage levels have been maintained. There was little change in the cost of living in the oilfields and in Kuching, as in 1955, there was a drop of two points in the price index. In 1955 this index was on an average just under twenty-two points above the basic figure of one hundred for August, 1950.

The daily earnings of a rubber tapper averaged from \$2.50 to \$3.50 and there are in addition perquisites in the form of free housing and other amenities. Carpenters earn \$8.00 a day. The rate in the sawmills varies from a minimum of \$3.50 to \$12.50 per day. Road and building construction workers range from \$5.00 to \$12.00 and wharf labourers from \$4 to \$15.20 per day. The minimum wage in the oilfields increased in 1956 to \$5.74 a day for skilled workmen and \$4.22 for unskilled. Both classes are given free housing, light and fuel.

The Commissioner of Labour for Sarawak is the Commissioner of Labour for Brunei also. He is stationed in the oilfields at Kuala Belait. All District Officers are Deputy Commissioners of Labour and are responsible for enforcing labour legislation and for the inspection of industrial undertakings within their area.

The Labour Ordinance, embodying the principles of the International Labour Conventions and enacted in 1952, protects workers in hours of work, health conditions, the age of admission to employment, medical treatment, provision of written contracts of employment, notice pay, and conditions of extra-territorial recruitment.

Four Trade Unions were registered in 1956 and the total is twenty-nine. The older and bigger unions are developing. Some of the lesser ones are too small to be very effective. It is the policy of the Government to promote the healthy growth of Trade Unions and the Registrar of Trade Unions is a specially trained officer who is in close touch with the Unions and advises them constantly.

There were no significant trade disputes. Minor wage disagreements were settled without difficulty either by the Commissioner or his Deputy. Industrial disputes are infrequent. There was no labour unrest and little reason to fear it. The demand for labour still exceeds the supply and wages are high.

III

PUBLIC FINANCE AND TAXATION

REVENUE AND EXPENDITURE

REVENUE and Expenditure for the years 1955 and 1956 were :

	<i>Revenue</i> \$	<i>Expenditure</i> \$	<i>Surplus</i> \$
Actual 1955	49,774,861	34,431,606	15,343,255
Actual 1956	51,443,347	43,170,607	8,272,740

\$14,500,000 was transferred to the Development Fund from Surplus Balances in 1956 and the General Revenue Balance as at 31st December 1956 was \$56,717,168.

REVENUE

The main heads of Revenue are :

<i>Ordinary Revenue</i>	<i>Actual</i> 1956 \$	<i>Actual</i> 1955 \$
Customs	26,892,259	28,583,239
Licences, Taxes & Internal Revenue	3,420,131	3,050,086
Fees of Court or Office, etc.	1,246,983	974,809
Departmental Services	867,169	836,082
Reimbursements	1,207,347	1,458,145
Land	945,959	843,273
Forests	1,519,394	1,515,503
Posts and Telegraphs	1,013,284	837,143
Marine	266,781	255,443
Municipal (Outstations)	—	243,253
Revenue from Government Property	1,247,579	1,075,984
Interest	3,961,418	3,100,227
Income Tax	7,248,649	6,230,167
<i>Extraordinary Revenue</i>		
Land Sales	1,452,731	619,651
Loan Repayments	153,663	151,856
	<u>\$51,443,347</u>	<u>\$49,774,861</u>

EXPENDITURE

Heads of Expenditure are:

<i>Head</i>	<i>Actual</i> 1956 \$	<i>Actual</i> 1955 \$
Governor	138,127	128,472
Rajah's Dependants	111,643	110,151
Administration	2,796,369	2,447,992
Agriculture	964,724	818,124
Audit	120,665	98,619
Boys' Home	37,313	34,061
Broadcasting	571,664	—
Civil Aviation & Meteorological Service	406,322	269,630
Community Development	100,770	—
Constabulary	3,702,106	3,305,850
Contribution to Development Fund	3,000,000	3,446,903
Co-operative Development	202,963	189,461
Defence and Internal Security	19,450	48,509
Education	5,745,803	1,292,827
Forests	452,289	392,092
Immigration & National Registration	64,255	—
Information Service	222,403	—
Judicial	341,001	263,753
Lands and Surveys	2,104,650	2,033,602
Land Transport	208,087	—
Legal	141,523	102,598
Legal Aid	—	—
Local Authorities	929,701	544,480
Marine	1,290,168	1,022,763
Medical	4,524,710	3,733,245
Miscellaneous Services	1,633,335	1,273,912
Municipality of Kuching	454,615	866,505
Municipal, 1st Division	—	9,510
Municipal, 3rd Division	—	49,208
Municipal, 4th Division	—	117,215
Museum	114,073	87,885
Pensions and Gratuities	1,874,928	1,667,165
Posts and Telegraphs	1,291,071	972,403
Printing	516,886	640,715
Prisons	304,635	279,666
<i>Carried forward</i>	<u>34,386,249</u>	<u>26,247,316</u>

<i>Brought forward</i>	34,386,249	26,247,316
Public Works Department	1,609,343	1,154,066
Public Works Recurrent	2,113,697	1,900,218
Public Works Non-Recurrent	2,769,768	2,441,279
Secretariat	630,015	1,279,098
Trade and Customs	1,182,822	934,856
Treasury	478,713	474,773
	<u>\$43,170,607</u>	<u>\$34,431,606</u>

ASSETS AND LIABILITIES

STATEMENT OF ASSETS AND LIABILITIES AS AT 31ST DECEMBER, 1956

*Assets**Previous Year*

\$ 3,264,752.19	Cash		\$ 1,896,044.17
69,037.21	Fixed Deposits with Chartered Bank, Kuching		115,851.69
6,737,142.86	Joint Colonial Fund		178,600.07
	General Investments:—		
	Sterling Securities at Middle Market Value	\$62,566,162.88	
64,386,129.85	262988 shares in the Sarawak Electricity Supply Co., Ltd., at cost	262,988.00	62,829,150.88
	Investments on behalf of Special Funds:—		
	Sterling Securities at Middle Market Value	\$ 6,666,083.81	
5,931,973.76	Deposits with Joint Colonial Fund	1,034,748.94	7,700,832.75
—	Colonial, Development & Welfare Issues over-refunded		25,417.21
460,826.66	Trading Account Food Control		—
—	Allotments		—
4,967,341.38	Advances		8,290,546.99
558,854.83	Current Accounts		203,751.16
264,616.02	Drafts and Remittances		31,840.65
230,561.63	Remittances between Chests		524,711.87
24,092.83	Suspense (Sarcon)		—
<u>\$86,895,329.22</u>			<u>\$81,796,747.44</u>

Liabilities

	Deposits:—		
	Security Deposits	\$ 161,706.44	
	War Damage Claims Commission	—	
\$ 1,210,225.76	Miscellaneous	1,677,348.35	1,839,054.79
—	Trading Account—Food Control		169,720.06
7,467,762.22	Special Funds		8,306,307.52
706,194.46	Current Accounts		693,682.97
25,881.04	Allotments		124,789.89
70,496.98	Colonial, Development & Welfare Over-issues		106.40
13,073,514.13	Development, Welfare & Reconstruction Fund		13,945,917.11

General Revenue Balance:—

Balance as at 1.1.56	\$64,341,254.63	
Less Transfer to D.W. & R. Fund	14,500,000.00	
	<hr/>	
	\$49,841,254.63	
Add Surplus & Deficit	8,272,740.32	
	<hr/>	
	\$58,113,994.95	
Deduct Depreciation of Investments	1,392,430.09	
	<hr/>	
	\$56,721,564.86	
Deduct Loss on Sales of Investments	4,396.16	
	<hr/>	
64,341,254.63 Balance as at 31.12.56		56,717,168.70
<hr/>		<hr/>
\$86,895,329.22		\$81,796,747.44

Public Debt

There is no public debt but at 31st December, 1956, a sum of \$5,717,500 had been charged to Advances in anticipation of loans to be raised. This was spent in the development of electricity through the Sarawak Electricity Supply Company, Limited, now wholly owned by the Government.

Customs Tariff

The Customs Tariff is divided into two parts: Import Duties on tobacco, liquor, petroleum products, textiles and a variety of other commodities; and Export Duties on rubber, sago, pepper, jelutong, illipe nuts, copra, damar and edible birds' nests.

In December, 1956, the Import Duties on tobacco and liquors were increased by approximately a third of the previous rate.

EXCISE, STAMP DUTIES AND OTHER TAXES

Excise duty is levied on locally manufactured arrack, certain wines, and matches. The Excise duty on liquors was increased by \$1.60 in December, 1956.

Stamp Duty

Stamp duties are imposed on all documents required to be stamped under the provisions of the Stamp Ordinance (Cap. 17). They include duty on Cheques, Bills of Exchange, Promissory Notes, Agreements, Contracts, Affidavits, Declarations of Trust and Instruments creating an Annuity.

Income Tax

Income Tax is charged, levied and collected under the Income Tax Ordinance, 1949 (No. 16 of 1949) but at present only on the incomes of companies incorporated or registered under any



Mrs. R. J. Bettison

Work going on at the new Sibu concrete wharf



The new concrete wharf at Sibn

law or charter in force in Sarawak or elsewhere. On each dollar of chargeable income for the year of assessment, tax is levied at thirty per cent.

Trade Licence Fees

The Trade Licensing Ordinance, a corollary of the Income Tax Ordinance, extends direct taxation, in the form of trades licence fees, to certain businesses. Fees vary accordingly to the nature and locality of the business and are at lower rates in rural areas. For import and export trade businesses there is a graduated scale, based on the value of imports or exports. Rates range from a basic fee of \$60 for imports not exceeding \$10,000 or exports not exceeding \$30,000 to 1% for imports exceeding \$450,000 or exports exceeding \$950,000. When the income from a business is charged with income tax, no trade licence fees are payable.

Head and Door Tax

Head Tax at the rate of \$1 per adult male is paid by all Malays and some Dayaks. Most of the Dayak communities pay a "door" tax of \$1 per door, the "door" being the apartment in a Dayak longhouse occupied by a single family. In areas where Local Authorities have been established these taxes are collected by the Local Authorities and the Government remits the bulk of the collection to the collecting agents.

Entertainment Tax

A tax is charged on all payments for admission to entertainments.

Estate Duty

Estate Duty is charged upon all estates above \$1,000. Rates are as follows:—

Where the value of the estate exceeds

\$ 1,000 but does not exceed \$	3,000	1	per cent
\$ 3,000	„ „ „ „	\$ 5,000	1 ½ „ „
\$ 5,000	„ „ „ „	\$ 7,500	2 ½ „ „
\$ 7,500	„ „ „ „	\$ 10,000	3 ½ „ „
\$10,000	„ „ „ „	\$ 20,000	5 „ „
\$20,000	„ „ „ „	\$ 40,000	7 ½ „ „
\$40,000	„ „ „ „	\$ 70,000	10 „ „
\$70,000	„ „ „ „	\$100,000	15 „ „
Over \$100,000		20	„ „

IV

CURRENCY AND BANKING

Currency

LEGAL tender is of notes and coin issued by the Board of Commissioners of Currency, Malaya and British Borneo.

The value of the Malayan dollar is two shillings and four pence sterling.

At 31st December, 1956, there were \$49,210,956 of Malayan currency in circulation and \$751,190 of Sarawak currency, the latter composed of \$281,628 in notes and \$469,562 in coins. There was a decrease of \$1,720,000 in the Malayan currency in circulation during the year, covered by an increase of \$10,950,000 caused by a subversive 'drift' from Brunei over the period 1951/1955. \$599 of Sarawak currency in notes were withdrawn.

Banking

Banking facilities are provided by the Chartered Bank in Kuching, Sibü and Miri and the Oversea Chinese Banking Corporation in Kuching. There are four Chinese trading banks in Sarawak; Bian Chiang, Kwong Lee, Wah Tat, and Hock Hua.

Post Office Savings Bank

There were 8,238 depositors in the Post Office Savings Bank at the end of 1956, compared with 7,743 at the end of 1955. The sum to their credit was \$4,206,206 against \$3,877,444 in 1955.

Deposits of \$2,060,044, exceeded withdrawals by \$238,218.

V

COMMERCE

THE volume of exports showed a slight increase over on previous years but the value (apart from oil) decreased considerably owing to the very low prices of the principal commodities, especially towards the end of the year. Port facilities at Sibü were enormously improved during the year but there is still much to be done, another godown being badly needed. Otherwise there was little port development in Sarawak during the year, but plans were made for considerable improvements in the Lower Rejang.

External Trade.

The value of external trade for 1956 was \$950,887,495 compared with \$919,807,967 in 1955 and \$78,415,599 in 1940, the last full year before the war.

This was made up as follows:

	1956	1955
Total Exports	\$487,000,860	\$477,460,040
Total Imports	463,886,635	422,347,927
Favourable Trade Balance	<u>\$ 23,114,225</u>	<u>\$ 35,112,113</u>

Disregarding the import of crude oil piped from the neighbouring State of Brunei and the small quantity won in Sarawak, and the export of both crude oil and refined products, the trade position is as follows:

Imports	\$150,147,126
Exports	130,296,467
Adverse Balance	<u>\$ 19,850,659</u>

Imports

The declared value of Imports for 1956 was about

\$463,886,635. These are the details:—

	1956	1955
Food	\$52,305,155	\$52,229,868
Beverages and Tobacco	10,890,770	10,981,987
Crude materials, inedible (except fuels)	5,004,535	6,214,202
Mineral fuels, lubricants and related materials	321,540,437	299,432,704
Animals and vegetable oils and fats	560,314	546,106
Chemicals	9,530,525	9,827,549
Manufactured goods classified chiefly by materials	24,625,911	25,583,606
Machinery and transport equipment	19,864,026	19,052,882
Miscellaneous manufactured articles	10,424,302	10,178,853
Miscellaneous transactions and commodities N.E.S.	9,140,660	8,300,170
	<hr/> \$463,886,635 <hr/>	<hr/> \$442,347,927 <hr/>

	1956	1955
Crude oil imports	\$313,739,509	\$292,166,160

The cost of certain basic foodstuffs such as rice and salt showed further reductions whereas flour, sugar and milk showed substantial increases when compared with former years. The respective declared values were—

	1956	1955
Rice	\$ 374.07 per ton	\$ 393.41 per ton
Flour	319.29 „ „	305.67 „ „
Sugar	373.86 „ „	364.49 „ „
Salt	59.35 „ „	57.43 „ „
Milk	1,279.05 „ „	1,020.58 „ „

Exports

The value of exports for 1956 was \$487,000,860 made up as follows—

	1956	1955
Petroleum crude and refined	\$356,704,393	\$329,674,435
Rubber	68,635,041	78,744,880
Pepper	24,610,131	31,624,880
Sago Flour	2,422,702	2,006,735
Copra	156,540	504,352
Jelutong	1,560,825	915,854
Timber	19,064,435	21,962,081

Illipe-nuts	92,198	873,213
Sundries (including re-exports)	13,754,595	11,153,610
	<u>\$487,000,860</u>	<u>\$477,460,040</u>

Rubber

Exports of rubber were 41,234 tons compared with 39,411 tons in 1955.

Pepper

Despite forebodings at the beginning of the year of the effect of disease, production was much higher in 1956 than in 1955. Exports in 1956 amounted to 19,818 tons compared with 16,297 tons for 1955. Production of black pepper was again predominant over white:

	1956	1955
White	2,760 tons	2,331 tons
Black	17,058 „	13,966 „

The general depression in market value towards the end of the year did not appear to reduce the volume of exports to any great extent.

Sago Flour

Exports of sago flour were 12,576 tons compared with 9,871 tons in 1955.

Copra

Exports of copra during the year were 476 tons compared with 1,575 tons in 1955. Comparative figures are not available but it is possible that part of the crop available for export was absorbed by a vegetable oil factory and exported in the form of oil. The market was rather depressed.

Jelutong

Exports of jelutong during 1956 were 591 tons against 451 tons in 1955.

Timber

Exports of timber during the year were 197,089 tons compared with 210,043 tons in 1955.

Cargo Tonnage

The tonnage of cargo discharged and loaded during the year, including oil in bulk, was 5,956,094 compared with 5,450,359 in

1955 as detailed hereunder—

		DISCHARGED		LOADED	
		Cargo	Oil in bulk	Cargo	Oil in bulk
Kuching	Tons	98,161	20,168	53,070	—
Sibu	,,	57,058	6,464	30,753	—
Sarikei	,,	10,894	564	20,056	—
Binatang	,,	6,313	23	4,579	—
Tanjong Mani	,	1,247	—	154,670	—
Miri	,,	19,242	—	9,303	5,430,591
Bintulu	,,	1,185	—	11,494	—
Limbang	,,	1,736	—	7,526	—
Lawas	,,	1,307	—	8,610	—
Sundar	,,	553	—	578	—
Total	,,	197,696	27,159	300,648	5,430,591

The port of Tanjong Mani continued to be much used though only lighterage facilities are available. One hundred and fourteen vessels called at Tanjong Mani, the same as in 1955, compared with eighty-five in 1954 and sixty-seven in 1953.

Customs Revenue

The total Customs revenue for 1956 was \$26,019,379. The following is a comparison with previous years:

	1956	1955	1954	1940
	\$	\$	\$	\$
Export Duties	12,111,794	14,275,294	10,216,275	1,278,254
Import Duties	13,907,585	13,498,520	11,962,960	2,252,028
	26,019,379	27,773,814	22,179,235	3,530,282

Tariff

Alteration to the Customs Tariffs during the year was made in December when the import rates on intoxicating liquors and Duty on earth-moving equipment was changed to 15% general Duty on Earth-Moving Equipment was changed to 15% general and nil preferential.

Excise

Excise revenue was \$869,459, the principal source being three distilleries. For 1955 it was \$808,479.

IV

LAND UTILISATION AND TENURE

LEGISLATION

THE earliest law to control land in Sarawak dates back to 1869, when the Rajah in Council made provision for the alienation of land under grants in fee simple or leases for 900 years; for the reservation of mineral rights to the State; and for road and river bank reserves. Many additions and modifications were made in subsequent years and in 1932 the present Land Ordinance was introduced (as Order L-2, 1931) to consolidate all previous land legislation. The Land Ordinance, and the Rules made thereunder, provides for the control and alienation of Crown Land, the classification of lands, the registration of title and transactions in land and for conditions under which land may be alienated. It safeguards minerals rights and provides for the creation of reserves and native holdings and penalties for infringement or default.

In the following year another Ordinance, now known as the Land Settlement Ordinance, was brought into effect to provide for the settlement of rights to land and for the creation of a new Land Register based on an accurate and fully verified cadastral survey. This Ordinance, based on the broad principles of the Torrens System, was intended eventually to cover the whole of Sarawak and to replace the Land Ordinance but this has proved impracticable for a number of reasons.

In 1949, the Land Classification Ordinance was introduced to clarify the classification of lands, hitherto covered only loosely by the Land and Land Settlement Ordinances, and to provide for the transfer of one class of land to another and to define rights of natives and non-natives in such land. The classification of land is dealt with in more detail on page 34 below.

The new Land Code was published as a Bill in December 1956 for general information. The object of the Code is to consolidate the present law relating to land into one piece of legislation and to bring it up to date by filling in gaps on which

the law is silent and by amending those parts which have been found unworkable or overlapping.

The first draft of the Code was prepared by Mr. J. Caradus, a former Registrar-General of Land, New Zealand, who was appointed to the Land and Survey Department on a one-year contract in 1954. The draft has been amended by the Attorney-General in consultation with the Director of Lands and Surveys and after circulation to the Administration and Judiciary.

POLICY

One of the chief aims of the present land policy is that Crown land should be alienated to the best general economic benefit of the people of the country, with due regard to the need for planned development, particularly in agriculture, and to the future requirements of a growing population. In respect of alienated land sound administration of the land laws will ensure that rights of owners are safeguarded and that administration of land is based on sound principles and adequate surveys.

It was the policy of the Rajah's government, and remains that of the present Government, to pay sympathetic regard to the customs of the people and their rights thereby established in the matter of Native Customary lands. Where farming rights are claimed no person may claim more than he and his family can farm effectively, having regard to the preservation of the maximum fertility of the land. At present all native communities continue to practise shifting cultivation over about three-quarters of all farming land in the country and this is one of the main difficulties in furthering the policy of recording, as extensively as possible, all customary or other rights and to safeguard these by the issue of documentary titles. It is probable that as the development goes on the tendency will be for the demand for individual rights by title to increase, and, possibly in the remote future, customary tenure may disappear. The speed with which this process is carried out must naturally depend upon the wishes of the communities concerned.

ORGANISATION

The Land and Survey Department is responsible for the alienation of Crown land and cadastral surveys; the issue of titles and the registration of dispositions affecting land; the collection

of quit rent; trigonometric and topographical surveys; the production of maps; and for town planning and land valuation. The administration of the Mining Ordinance is, in the absence of a separate Mines department, the responsibility of this Department.

The Department is divided into a Headquarters at Kuching and four divisional offices at Kuching, Simanggang, Sibuan and Miri, the Miri office being responsible for land and survey affairs in both the Fourth and Fifth Divisions.

The staff recruiting position continues to be disappointing especially for technical vacancies. In spite of the increase in the general standard of education, recruitment of men for survey work and for professional training overseas is not satisfactory. For some time to come the work of the Department is likely to be retarded for this reason.

LAND SETTLEMENT

With the impending introduction of the new Land Code, no new areas have been brought under the provisions of the Land Settlement Ordinance.

Settlement operations on the Nonok Peninsula were completed and the administration of land in this area was resumed by the Superintendent of Lands and Surveys, First Division, on 1st August 1956.

AGRICULTURAL SETTLEMENT

One of the aims of the present land policy is to anticipate, where possible, the demands for land for permanent agricultural settlement and to select blocks of land suitable for this purpose and to subdivide it for alienation to new settlers. The demand is greatest in areas which adjoin those containing the main concentrations of the Chinese agricultural communities. The natural increase in population, the lack of opportunities for boys leaving school in spheres other than agriculture, the considerable increase in available capital following the satisfactory level of Sarawak's primary agricultural products in post-war years, and the restriction on remitting cash to China—all these are factors supporting the demand by the Chinese for more land. Government recognises the urgency of making more land available in accordance with an agricultural policy which aims at an increase in the export of cash crops, particularly rubber, pepper, coconut and sago.

There are signs that potential new settlers are overcoming a hitherto marked reluctance to move away from the main regions of established Chinese settlement to areas where new land can be made available. The problem of land re-distribution is a complex one. Any re-classification of native lands as Mixed Zone land to permit the issue of titles to non-natives, where the demand for land is greatest, would only aggravate the general shortage of native farming land by encouraging natives to dispose of their rights to non-natives for attractive cash payments.

In the First Division, the agricultural area served by the Simanggang Road has continued to receive close attention. Chinese squatters continue to occupy isolated lots over which native rights exist and efforts are being made to settle them permanently on other lands. Investigations are being made in an area at the 16th mile, Lundu Road (now only a path beyond the 10th mile) with a view to settling five hundred families in the area. Systematic inspections of land are being made, between the 13th and 39th miles, Simanggang Road, of all land under title with a view to re-entering abandoned land and its eventual re-allocation. Surveys of rubber and fruit groves in this area have revealed that there has been extensive planting in the last ten years of low grade seedling rubber by Land Dayaks on land formerly used by them for dry padi. It remains to be seen whether the owners of this rubber can be persuaded to destroy the low grade rubber and to replant high yielding material in blocks of more economical size and suitably placed for access to roads and villages.

A block of land has been made available near Simanggang for the settlement of Foochow Chinese from the Lower Rejang. Although the land is not suitable for high yielding rubber considerable drainage works have been undertaken. In the Fourth Division encouraging progress has been made on the scheme in the Sibieu area of Bintulu where it is hoped eventually to settle Chinese farmers on more than 4,000 acres. So far some 2,500 acres of forest have been cleared for rubber planting and interim crops of padi and maize have been planted. New settlers are being helped under the Government's Rubber Replanting Scheme. Another block of about 2,000 acres of land suitable for rubber planting has been provisionally selected in the Bakong area of the Baram. If the reclassification of this area as Mixed Zone

land is approved, compensation will be paid by Government, for extinguishing any existing native customary rights over the land, before lots are made available to intending Chinese settlers.

At Julau, in the Third Division, surveys of native customary rights have been completed over 1,700 acres and agreement has been reached for the extinguishing of rights by monetary compensation. The land has been classified as Mixed Zone and action is being taken to alienate it for Chinese Agricultural Settlement. Similar surveys have been made over some 13,000 acres of undulating land above Sarikei and Binatang, where land use data has been collected and compiled, and in the Pasai-Siong area east of Sibu. It is hoped, as a result of these surveys, that several thousand acres of suitable land can be made available for rubber planting.

LAND UTILISATION

In addition to land use surveys mentioned above, a land use map of Sarawak has been compiled at the request of the Internal Migration Committee appointed during the year by the Governor, with the following terms of reference:—

(a) to examine generally the distribution of population throughout Sarawak with a view to identifying areas in which population is excessive for local agricultural or industrial resources;

(b) to consider whether such local over-population can be relieved by migration within Sarawak, or by other means;

(c) to identify areas suitable to receive immigrants from the areas referred to under (a) above; to recommend generally on the best methods to adopt for such migration, including the actual transfers of population and the planning of land use within the receiving areas;

(d) to ensure the co-ordination of executive action connected with transfers of population, either through action taken by staff placed directly under the control of the Committee or by instructions issued through the Chief Secretary to the appropriate departments upon the Committee's recommendation.

For the successful realisation of the objects mentioned above, the Committee may:—

(1) reserve areas of land provisionally as resettlement areas prior to the examination of their suitability for the purpose;

(2) determine the conditions under which titles to land may be issued to resettled persons;

(3) resettle any existing population in a resettlement area in such manner as may be necessary to ensure the proper use of the land.

During the year the Committee was engaged mainly on a preliminary study of the distribution of the hill-rice population, and of land available and suitable for this form of agriculture. This study involves the mapping of all hill-rice settlements, a rough census of their population, and an inquiry into the condition of such land throughout the country. These data, the collection of which was nearing completion at the end of the year, must then be correlated with the information given by the land-use map.

The map comprises seven 1/250,000 sheets in colour and was compiled from air photographs to shew the main categories of vegetation in Sarawak as indicators of soil conditions.

LAND CLASSIFICATION

There was no major reclassification of land during the year. The inset map facing this page shews the classification of land within the following categories:

Mixed Zone Land	4,360 sq. miles
Native Area Land	2,324 sq. miles
Reserved Land	11,816 sq. miles
Interior Area Land and Native Customary Land	29,000 sq. miles
Total	<u>47,500 sq. miles</u>

Both natives and non-natives of Sarawak may hold title to Mixed Zone Land but Native Area Land is restricted to natives only. It is possible, however, for non-natives to occupy temporarily, under permit, for padi farming, Native Area land—and Native Customary land—in certain specified localities after agreement for rent has been reached with the owner of the native customary rights and approved by the Administration.

The greater part of Reserved Land comprises Forest Reserves, Protected Forests and Native Communal Forests. There are however numerous small Government Reserves of land, mainly at Government Stations throughout the country, and several reserves used by the Department of Agriculture.

All land farmed by natives under shifting cultivation is classified as Native Customary Land unless it falls within areas of Mixed Zone or Native Area Land. All other land comes in the category of Interior Area land, which is mostly under primary forest.

APPLICATIONS FOR LAND

The number of applications for land received was 6,010, a decrease of 1,000 compared with 1955. They are summarised as follows:—

<i>No. of Applications</i>	<i>Acreage</i>	<i>Purpose</i>
389	253	Building
2,576	17,317	Rubber
381	1,891	Coconut
215	312	Pepper
455	3,235	Sago
674	2,586	Padi
1,309	7,680	Other Agricultural
11	431	Cattle Grazing

The figures reflect, to some extent, agricultural trends and current market prices. Prices for sheet rubber during the year were higher than expected, especially during the period of the Suez crisis, and an increasing amount of interest is being shewn in the Government's Rubber Replanting Scheme. Both these factors have resulted in a continued demand for land for rubber. Apart from a considerable amount of swamp land in the Third Division, which is considered unsuitable for the planting of high-yielding rubber, the demand for suitable rubber planting land greatly exceeds what can be made immediately available for alienation.

Little pepper is being planted and already rubber is being planted between mature vines in some gardens. There was a further gradual fall in the market prices of white and black pepper during the year.

TITLES

6,361 titles were issued during 1956 covering more than 23,000 acres of land. The number of titles extant at the end of 1956 was 145,141.

LAND REGISTRATION

9,774 instruments affecting land were registered during the year in the Land Registers at Kuching, Simanggang, Sibuluan and Miri, an increase of more than 15% over 1955. Of these 4,772 were transfers. Charges exceeded releases of charge by less than 10%.

SURVEYS

The greater part of the field survey staff has been employed on cadastral surveys throughout the year. Surveys have kept pace with the number of applications for land and mutations, and it has been possible, in the Fourth and Fifth Divisions, to carry out a considerable programme of revision surveys. Those in the Baram have been completed and a start has been made in the Limbang area. Progress has been encouraging and the reconstitution of cadastral records lost during the war is now going ahead as planned.

Some secondary triangulation was carried out in the Third and Fifth Divisions as extensions to the existing network in these areas. Small topographical surveys have been carried out in connection with a number of development projects for schools, quarries, hospitals, etc.

MAPPING

The Directorate of Colonial Surveys in England has continued work on the Sarawak 1/50,000 topographical mapping programme. This mapping is being carried out from air photography by the R.A.F. and from ground control and other information supplied from Sarawak.

A block of fifteen sheets covering parts of the First and Second Divisions had almost been completed at the end of the year, and another block of some sixty sheets covering parts of the coastal regions of the Third and Fourth Divisions is in hand.

Meanwhile, good use continues to be made of uncontrolled mosaics which now cover more than four-fifths of the Colony. The R.A.F. were not able, during the year, to tackle the 10,000 square miles of the interior not yet photographed, and new photography was confined to a number of large-scale strips of photography taken on training flights.

In compiling and drawing the Land Use Map of Sarawak, referred to earlier, some help was given for five months by a detachment of draughtsmen from a survey unit of the Royal Engineers in Malaya. Sarawak's map printing is undertaken by the Survey Department, Malaya, whose instrument repair branch continues to give facilities for the overhaul and repair of survey equipment.

HOUSING AND TOWN PLANNING

GENERAL

Government has tried during the last few years to recruit a town planning officer but without success. Application has therefore been made to the Council for Technical Co-operation in South and South-East Asia under the Colombo Plan for the services of a town-planner for three years. The need for a such an officer has long been felt, but the appointment is now a matter of urgency, to make specialist advice available to Government and to local authorities as required.

The introduction of the Land (Control of Subdivision) Ordinance, 1954, has enabled the Kuching Municipal Council and the Sibü Urban District Council to exercise considerable control over the subdivision of land in the areas under the control of the two Councils. At present draft plans are prepared by the Land and Survey Department on behalf of the owner, before submission to the Councils. This arrangement is not satisfactory because departmental officers are unable to devote the time necessary for the proper preparation of plans, inspections of land, etc., and the Councils do not have the qualified staff necessary for the checking of draft plans before approval.

In Kuching 148 draft plans involving 930 lots were prepared in 1956 and in Sibü there were ninety-two and 604 respectively. There is a possibility that the provisions of the Ordinance may be extended to certain other major towns in Sarawak e.g. Miri, and Sarikei, in the near future.

KUCHING

The Land and Survey Department has carried out a considerable amount of town development work in Kuching during 1956. In conjunction with the other authorities concerned a provisional zoning and roading plan has been prepared. Several schemes for the development of new residential areas are in various stages of progress. The position of squatters within the greater town area has improved, some having been settled by Government, and others under their own arrangements.

The resettlement of the Kampongs Pinang and Jawa is nearing completion, and the new Kampong Gita, about half a mile from the Sarawak River on the Matang Road, is taking shape. Some sixty-nine new houses have been erected and occupied; newly constructed earth roads provide access to each lot, and a full-size football field is nearing completion. Blocks of flats erected under the Kuching Municipality's low cost housing project referred to above already occupy part of the area vacated by Kampong Pinang.

Another scheme in the early stages provides for the resettlement of part of the Henghua Chinese fishing community who at present occupy land on the outskirts of the town.

Town Planning

The Kuching Municipal Council has a town planning Committee, but no technical town planning staff. The Government Architect advises the Council. The need for planning the development of the township in an orderly manner has long engaged the attention of the Council. On the 19th November, 1956, Mr. D. H. Komlosy, by courtesy of the Singapore Improvement Trust, paid a visit of eight days to make a preliminary survey on the need for a town planning organisation in Kuching. His report had not come at the end of the year.

Buildings

The price index of building costs, which reached its lowest post-war point in the last quarter of 1954, rose sharply during 1955 and 1956, and there is no present sign of any tendency to level off. This affected the costs of constructing the Municipal Council's low-cost housing project and the original estimates were revised from \$3,440,000 to \$3,845,300.

The first phase of the scheme, to build 532 housing units, was completed by 1st November, 1956, and tenants moved into forty terraced houses. The estimated monthly charges for rent and rates including service charges for communal lighting, cleaning, scavenging, operation of lifts and maintenance of grounds, are: terraced houses \$61, two-bedroom flats \$52 and one-bedroom flats \$39. These rents are higher than the Kuching Municipal Council wished but, if the scheme were repeated at present construction costs, rental charges would be substantially higher. Applications for tenancy tended to drag despite the gross overcrowding in the bazaars. This is probably due in the main to a reluctance to move. This was noticeable when Padungan bazaar was built in the late 1920s.

Considerable investigation went on in 1956 into the possibly of developing housing estates by the Municipal Council or another authority for re-sale. First consideration was devoted to building estates with a density of five or six houses to the area, at a price, including site preparation, of about \$9,000. It is estimated that residential lots have risen in value by about 500% during the post-war years and that residential land commands between \$15,000 and \$30,000 an acre. Values fluctuate considerably between localities.

SIBU

1956 saw considerable development at Sibu, and the completion of many new buildings, extensions of the river wharf and other port works. Generally satisfactory trading conditions enabled the boom in house building to continue and the demand for land in the residential areas maintained the market value of the land at a very high level.

The former slum area of Kampong Pulau has been cleared completely and seventy-one new houses have been erected by the former owners in Kampong Baharu, a newly laid-out residential area about a mile from the town. The new kampong, although sited on low-lying land, is served by new roads and footpaths above flood level and water mains have been laid in anticipation of the improved water supply due in 1957. Meanwhile an interim water supply is provided by standpipes. Many owners of houses in the old kampongs here and in Kuching took advantage of their proximity to the town and the general housing shortage to rent

illegally parts of houses, cubicles, etc. to Chinese and for these people the resettlement has meant loss of income. There were the inevitable complaints against the inadequacy of the compensation and the distance of the new kampongs from the towns, but now that the new kampongs are well established the majority are contented and happy in the more pleasant and healthy surroundings.

Plans have already been made for using most of the sixteen acres vacated by the old kampong. Some six acres are earmarked for hospital extensions and a public sports ground; part has already been given to the Chinese School to accommodate additional buildings; the part nearest to the bazaar will be taken up with a bazaar extension providing for about seventy new shops, several sites for other commercial buildings, a new cinema and a hotel site. Although the land requires considerable filling to bring it above normal flood level, the sale of thirty lots in 1956, totalling about 210,000 square feet, realised \$1,084,000. The planned extension to the bazaar, new major road alignment, and the need for increased port facilities for river traffic, has made an extension of the original town development scheme necessary and the Development Board has been asked to approve additional expenditure on acquisition of land, the resettlement of a further thirty kampong houses, land reclamation and filling, and new roads.

Town Planning in Sibu is under the control of the Standing Committee for Housing and Town Planning of the Sibu Urban District Council which deals in its fortnightly meetings with hundreds of individual plans submitted to it and also advises on general lay-out plans. By this means building standards and sanitary accommodation are gradually improved for all types of premises. Many new houses are to be seen in the residential areas surrounding the town.

A general lay-out plan for the extension of the shopping area, including a car park, cinema, hotel and open spaces, and the development of the Pulau Babi water front area for godowns and stalls, was approved in May. Work began on the construction of roads and thirty-two shoplots were auctioned. Although, on the recommendation of the Council, the shop lots were auctioned a large number at a time in order to avoid inflated prices the

land continued to fetch nearly a million dollars an acre. This money helps to finance the building of road, river walls and main drainage.

To improve the standard of shop-house building the Council purchased an architects' plan for standard lots and owners may adopt this for a small fee. The new model is a marked improvement on older designs which lent themselves to over-crowding and were wasteful of space. It includes front and back verandahs on all upper floors and cuts out both airwells and five-foot ways.

MIRI

The Standing Committee for Housing and Town Planning had twelve meetings during the year, and amongst the major items discussed were

(1) *Slum Clearance :*

The progress has been satisfactory from the point of view of the number of houses dismantled as compared to the number of new houses built. Care was taken that the demolitions did not exceed the new houses built. Twenty-nine buildings were condemned and dismantled and fifty-two new buildings were completed and occupied.

(2) *Low Cost Housing*

The building of ninety-two units is in progress, and the total cost will be \$890,000. 20% of this will be a grant from the Central Government. The balance is to be borne by the Urban District Council in the form of a loan payable in instalments spread over sixty years. Monthly rent for each unit will not be more than \$44. This compares favourably with the existing rent of private houses where anything from \$30/- to \$45/- is being demanded for a room. About 300 applications, for occupation of, were received for the ninety-two units.

(3) *Industrial Site*

Negotiations to buy a plot of land inside the oil concession area at Merbau Road were concluded. The area is 7.1 acres, half of which will be utilised as an industrial site. Preference will be given to those at present carrying on business in shophouses as motor-repairers, carpenters, and in other light industries. So far, occupants of seven shophouses were given notice and they have agreed to move into the new industrial lots.

LAWAS

The site of the present Lawas Bazaar which was erected to replace the one almost totally destroyed during the reoccupation of Sarawak by the allied forces in 1945 is not on a suitable site as it is subject to erosion and does not permit of reasonable expansion. An alternative site of some twelve acres has been purchased on elevated land a short distance from the river. The new layout makes provision for some forty-two shoplots, together with industrial lots, sites for markets, open spaces and other requirements of a well planned bazaar. Lots have been allocated to title holders in the present bazaar and it is expected that the Public Works Department will complete the site preparation during 1957, prior to the erection of shophouses by private enterprise.

MAONG

As the first step to removing the substandard shophouses built to no plan at the Third Mile, Rock Road, Kuching, a site for a new bazaar has been purchased. The approved layout envisages a bazaar sited off the busy thoroughfare with adequate vehicular parking places.

Extensions are planned or have been made to numerous other towns and bazaars throughout the country. Additional lots have been made available for shops, residential and industrial development where necessary, involving in some cases, the acquisition of land.

VII

PRODUCTION

AGRICULTURE

AGRICULTURE is the primary pursuit of over two-thirds of Sarawak's varied population and it provides upwards of half the national income. The disadvantages, however, of a predominance of steeply undulating and swampy ground, with poor soils and very heavy rainfall, tend towards a practice of much of the agriculture at little better than a bare subsistence level. Diversity of cropping is also restricted. Small-holdings form the basis of the agriculture: there are only five large estates, all under plantation rubber.

Agricultural production falls into two categories—to meet local demands and for export. In the former, rice is the most important crop and although annual production *per caput* is believed to be slowly increasing it is still well below self-sufficiency. This is not, however, a cause for anxiety, for an exclusive policy of self-sufficiency in rice at the expense of more remunerative cash crops is not necessarily sound planning, especially when substitute starch crops can be easily produced in an emergency in such quantity that, while there may still be a preference for rice, the population will not starve if rice is unobtainable.

For export, the important crops are rubber, pepper, sago and coconut, in that order. Considering Sarawak's agricultural disadvantages it is fortunate that rubber is easily and, with due regard to standards of husbandry, economically produced by the majority of small farmers. Logically, the policy has been adopted of giving increasing prominence to the encouragement of systems of mixed farming based on a rubber economy. Under Sarawak conditions, rubber is a unique crop. Tolerant of a wide range of soil conditions and comparatively free from pests and diseases, it is easy to maintain and process, and the produce is non-seasonal and always finds a ready market. The analogy of the rubber tree to a "small man's bank" is not so far fetched as might be

supposed. Ready cash—a current account—is available daily to the owner in return for the little trouble involved in tapping and selling the processed latex. By leaving capital untouched in the bank, interest is accumulated. The rubber tree behaves likewise, by giving an increased yield if left untapped for a spell. The mere fact of keeping money locked away in a bank tends to encourage thrift. The same effect, but in another way, is achieved by the rubber tree. Unlike most other cash crops which provide seasonal cash returns, thus tempting the unthrifty to spend recklessly, the rubber tree for the whole of its life provides a small but regular income.

Except for rubber, agricultural development has been retarded by an acute lack of qualified and experienced staff at all levels. Assessment of agricultural development can, within broad limits, be made from a study of exports and imports of agricultural produce. This is the criterion which must be applied in Sarawak, where a system of statistical recording has yet to be developed.

Rice

Rice is the staple food of the indigenous races. Its export, either as rice or padi (unhulled form) is prohibited. To encourage production, the Government undertakes to purchase, at a guaranteed price, all surplus padi delivered at selected centres. This support price is fixed annually, and in the first six months of 1956 was \$16 per picul (133½ lb.). Subsequently it was reduced to \$15.

Padi is grown extensively either as dry padi on the steep slopes of the interior under a bush fallow system, or as wet padi on river levees, deltas, and the coastal flats. In many of these interior areas, bracken (*gleichenia* sp.) and lallang (*imperata* sp.) are rampant and cause a steady decline in yields and frequently a complete crop failure. Under the most favourable conditions yields of dry padi are reasonable but, on average, are not as high as those for wet padi which regularly average over 400 *gantangs* (gallons) per acre in selected areas. Standards of cultivation vary from good to bad, but the vagaries of the weather still determine whether good harvests will be reaped. Systems of double cropping, either with wet or dry padi, are not practised but frequently early maturing food crops, such as maize or beans, may be sown with the dry padi seed. The acreage under controlled drainage

and irrigation is negligible and considerable scope exists for an increased production of wet padi by the introduction and extension of improved water control. The 1955/56 season was poor. Harvest prospects for 1956/57 are good.

In the absence of reliable statistics about acreage and yield, an indication of production may be calculated on the basis of an assumed amount of rice consumed per head of population, with an adjustment for rice imported. In the table below, the consumption of rice per head per annum is assumed to be 288 lbs.

ESTIMATED PRODUCTION

<i>Year</i>	<i>Estimated Population</i>	<i>Estimated Rice Consumed Tons</i>	<i>Rice Imported Tons</i>	<i>Estimated Rice Production Tons</i>
1952	587,224	75,550	28,262	47,238
1953	598,484	76,948	21,667	55,281
1954	608,934	78,292	23,058	55,234
1955	619,751	79,682	31,093	48,589
1956	626,223	80,514	37,544	42,970

The table shows a large increase in imports in 1955 and 1956 without a corresponding increase in population. The inference is that more cash was available in those years for the free purchase of imported rice.

Padi suffers comparatively little from diseases. Pests, particularly rats, stem borers, and padi bugs, cause considerable damage to crops and there is considerable room for the extension of organised pest control. The free distribution of pesticides introduced in 1956 was very much appreciated and resulted in a substantially increased distribution of zinc phosphide and agroicide.

A survey of potential wet padi areas in the Tinjar (Fourth Division), Maludam (Second Division) and Nonok Peninsula (First Division) was carried out by a firm of consulting engineers. The report of the survey is disappointing. It shows that none of the three areas is suitable for intensive padi cultivation and only the Nonok Peninsula, near the mouth of the Kuching river, has a future for crops other than rice, and there only if extensive bunds are constructed to prevent the ingress of sea-water.

Rubber

The planted acreage is estimated at about 250,000 acres, of which 13,285 acres belong to five estates each with over 1,000 acres planted. The number of medium-size holdings is not exactly known but it is certainly not large, and the industry is predominantly one of small-holdings.

The tonnage (to the nearest ton) and value of rubber exported since 1951 are as follows:—

<i>Year</i>	<i>Tonnage</i>	<i>Value</i> \$
1951	42,521	158,865,402
1952	31,471	65,182,029
1953	23,958	31,616,358
1954	23,189	31,087,822
1955	39,411	78,744,880
1956	41,232	68,635,041

Production in 1956 was the second highest in post-war years.

The price trend was one of gradual decline with the starting point in January of \$135 per picul (133½ lb.) substantially lower than the average price in 1955. In May and June \$73 per picul was the lowest quoted price for the year. From then onwards until November recovery was gradual to a maximum of \$123. The December price was \$118 per picul.

Rubber is exported as sheet and blanket crepe but the quality generally is extremely low. This accounts for a considerable loss in potential revenue to primary producers. Upwards of 90% of the rubber exported was classed as RSS (Ribbed Smoked Sheets) grades 3, 4 and 5 which compares most favourably with the normal estate standard of a minimum output of not less than 70% No. 1 RSS. The acreage of selected high-yielding rubber is negligible and the majority of the holdings comprises old, unselected, seedling trees, badly planted, maintained and tapped, and rapidly approaching the stage where production will become uneconomic, even for smallholders, except during periods when an exceptionally satisfactory price is obtainable. Steps to rehabilitate the industry are seen in the emergence of a revised Rubber Planting Scheme to encourage replanting and new planting, with an aim of not less than 10,000 acres in the next five years.

The revised Rubber Planting Scheme was introduced in May. It provides for a subsidy respectively of \$450 and \$200 per acre, in cash and kind, to approved re-planters and new planters. The Scheme embraces both estates and smallholders of all races. Since May approval has been granted to 265 applicants to plant 1,637 acres and re-plant 708 acres. By the end of the year a total of 644 acres had been planted with high yielding planting material, 1,000 lbb. of cover crop seeds and 17 tons of fertiliser have been issued and instalments on cash subsidies amounting to \$31,000 have been paid. Applications were received for approval to plant 16,982 acres in 1957.

A high standard of husbandry conforming with recognised methods is insisted on and only the highest class of planting material is used. Budwood and clonal seedling nurseries have been established at centres throughout the country.

Pepper

A continued increased in production during 1956 was contrary to all expectations and forecasts, which necessarily took into consideration the incidence of disease and a period of low prices. The increased production is a tribute to the resilience of Sarawak's pepper growers against the disease and low prices. There are no large pepper estates in Sarawak and the system of pepper growing followed is probably the most intensive of any country where pepper is grown.

Prices were well below those of 1955 reaching their lowest point in June at \$61.09 for Black and \$75.35 for White. In December, the Kuching market price per picul (133 $\frac{1}{3}$ lbs.) had improved to \$79.09 and \$105.79 for Black and White respectively.

In post-war years the Sarawak pepper industry has emerged with three major assets. The first is the build-up of cultivation over an area believed to be greater than before the war. The second is the break through into the most important, i.e. the United States, market. The third is the apparent failure of India to increase her exports since 1949, the erratic nature of Indonesia's reduced crop, and the collapse of industry in Indo-China. Sarawak has thus risen to the important status of a major exporter of pepper of international influence. This table speaks for itself.

Main world trade in pepper (in thousands of cwts.) (Extracted from *Plantation Crops* — Commonwealth Economic Committee: H.M.S.O. 1956).

<i>Exporters (net)</i>	1937-39 (average)	'49	'50	'51	'52	'53	'54
Sarawak	54	6	6	24	80	180	309*
India	23	301	270	333	264	232	308
Indonesia	1018	60	141	66	136	150	249
Indo-China	92	17	20	13	11	10	1
Rest (approx.)	5	10	10	10	15	10	15
<i>Importers</i>							
United States	499	239	296	216	256	272	339
Europe	308	100	118	118	143	176	225
Rest	135	64	53	68	45	56	73

*1955 and 1956, 326 and 396 respectively.

Details of quantities (in thousands of cwts.) and value of pepper exported from the main ports in Sarawak since 1950 are listed :—

<i>Year</i>	<i>Kuching (1st & 2nd Divisions)</i>	<i>Rejang ports (3rd Division)</i>	<i>Miri and Limbang (4th & 5th Divisions)</i>	<i>Total</i>	<i>Value \$</i>
1950	3.3	2.1	0.2	6	4,107,166
1951	10.9	12.5	0.7	24	17,925,184
1952	41.4	36.3	2.5	80	33,031,835
1953	118.0	56.2	5.8	180	49,443,086
1954	189.0	107.0	13.0	309	43,706,513
1955	203.8	111.3	10.7	326	31,624,800
1956	234.4	148.8	12.6	396	24,610,131

The White pepper trade remains at a low ebb with 1956 exports some 14% of those for Black pepper, a similar proportion to 1955. Continued participation in the highly selective international market depends on keeping the industry at the highest efficiency and this can only be achieved by furnishing scientific answers to all problems. In other words, without long-term research it is, to say the least, improbable that production can be maintained at the highest economic levels. This obvious fact has been recognised and a Pepper Advisory Committee was constituted towards the end of 1956 to review the whole industry and advise.

A serious disease of pepper was first recognised late in 1952 but full-scale work only began with the completion of a plant pathology laboratory in 1955. Subsequent research has shown that the disease is caused by a species of *phytophthora* and not by a nematode as was originally suspected. The pathogen has been isolated from pepper vines in the 1st, 3rd and 4th Divisions and indications are that it spreads through soil, water and plant debris, but airborne infections cannot be discounted. While improved husbandry may be expected to mitigate some of the worst effects of the disease, which is most serious under very wet conditions, no early control measures are foreseen. It is considered that the most effective form of control will probably best result from the use of resistant varieties, the search for which was recently initiated. A similar disease was investigated and described before the war by Mr. H. Muller, working in Indonesia, and to this the term "foot rot" was given. This same term has been adopted in Sarawak in place of the earlier title of "sudden death".

Sago

The area under sago is uncertain but is believed to be roughly 150,000 acres, mainly in the Mukah, Oya, and Dalat districts of the Third Division. This already depressed industry suffered a severe setback when freight rates to Europe were suddenly increased from 1st September. The effect of the freight rate increase was to reduce the price received by primary producers by about 50 cents per picul (£1 sterling per ton). Although the local export price remained fairly constant, around \$12.00 per picul, exports increased from 9,871 tons in 1955 to 12,576 tons in 1956. Details of exports and their value over the last five years are appended:

Year	Tons	Value \$
1952	22,619	5,954,774
1953	16,073	4,371,384
1954	12,543	2,828,635
1955	9,871	2,006,735
1956	12,576	2,422,702

The Sago Advisory Committee, constituted in 1949 to advise Government on all aspects pertaining to the industry, met in Kuching on two occasions and toured the sago areas on a fact-

finding mission. From recommendations made by this Committee, action was taken, first, to review export standards in the light of trade requirements and fix a new minimum export standard for good quality unsieved sago flour; and secondly to consider, and later accept in principle, the registration of factories as a means of detecting, and with suitable action eliminating, faulty production of flour in the crucial early stages.

Coconut

The acreage has been put variously between 25,000 and 50,000 acres with the greatest concentration of palms in the First Division. The industry is essentially in the hands of smallholders with standards of husbandry, management and production having much to be desired. Copra, either for export or for local extraction of oil, is the main market interest, but there is considerable internal trade in fresh nuts for home consumption. Copra prices remained fairly steady throughout the year, averaging \$24.00 per picul. Exports were 476 tons. Coconut oil for local consumption was manufactured by the seven mills, of varying capacity, situated in the First Division.

Rehabilitation of the coconut industry is under consideration and, to provide basic information for a proposed Advisory Committee, a very rough survey was carried out in the latter half of 1956.

Minor Crops

Maize, sorghum, sweet potatoes, tapioca and yams are all widely planted as rice supplements but, individually, each is on a small scale. Except by Chinese market gardeners near the larger towns vegetables are neither intensively nor widely grown, although it is common practice for some of the early maturing pulses and gourds to be inter-planted with dry padi. Fruit of all types is in constant demand but the supply is inadequate. Local fruits are planted in mixed cultivation in most villages and because quality generally is low, the demand for high quality planting material of some of the more economic fruits far outweighs the supply. The establishment on an ever increasing scale of mandarin orange groves in the Sarikei district of the Third Division is an important development. Coffee planting on a small scale is gaining popularity, with a preference for *Robusta*.

Research

A plan to reorganise the Department of Agriculture, based on coordinated and complementary programmes of investigation and extension covering the next five years, was approved by the Government. Of immediate interest is the early establishment of a Soils Division and the formation of a special "wing" to concentrate on rice research. The former will provide an essential foundation for sound agricultural development while the latter will seek to increase rice production by intensification of production per unit area rather than extension of the acreage planted. Top priority in the rice research programme will be accorded to the problem of intensifying dry padi production without loss of soil fertility.

AGRICULTURAL EDUCATION

There was an insistent and widespread demand for rural training particularly in the simpler practical forms. Lack of staff and facilities prevented any real development along such lines, but it was possible partly to meet the demand in a very minor way, by a series of fortnightly courses on rubber growing at Samarahan Estate.

Extensive use was made of Radio Sarawak to publicise the Department of Agriculture's activities, with special emphasis on advisory aspects. Wide publicity over the air was given to selected agricultural topics in the Malay, Chinese and Iban languages. The papers *Pembrita* (Iban) and *Pedoman Ra'ayat* (Malay), published by the Information Service also carried numerous articles of agricultural interest.

ANIMAL HUSBANDRY

Animal husbandry plays a small part in Sarawak's rural economy, and mixed farming in the generally accepted sense is not practised. No livestock census has yet been conducted, but these are indications that only in the 5th Division are buffaloes to be found in number. To a very limited extent these animals are used for rice cultivation while meat production is fortuitous rather than systematic. Although small herds of cattle are raised in coastal areas and near towns, usually with the minimum of trouble to the owner, Sarawak still relies almost entirely on imported cattle for meat. Milk production, generally under un-

hygienic conditions, is practised to a negligible extent by a few Indian and Chinese cattle owners. Local production of pork is totally inadequate to meet the demand and it is therefore supplemented by regular importation of pigs for slaughter. The principal livestock imports in 1956 were 595 head of cattle and 17,707 pigs.

Cases of serious disease amongst privately owned livestock were fortunately few in number. But disease amongst departmentally owned cattle and pigs,—*piraplasmosis* (*anaplasma*; *babesia*) in association with *trypanosomiasis* in cattle and *vibriosis* in pigs seriously curtailed the long overdue programme for the improvement of local stock.

Pig keeping is so important in the economy that immediate concentration on the improvement of quality and an increase in numbers was adopted as a policy. To help implement this policy the gift of two Canadian-type Berkshire boars and gilts, towards the end of the year, by the Government of Australia under the Colombo Plan, was both timely and valuable. The cost of labour in pig rearing is a notable item in the total cost, but that of food is by far the heaviest, and ways of cheapening feeding costs must always be kept in mind. Sources of cheap protein as a livestock feed are not readily available in Sarawak and endeavours to find alternative sources in Australia have, unfortunately, so far proved unsuccessful.

Poultry and goats are widely kept throughout the country largely to meet individual family requirements. The demand for Ranikhet (Newcastle disease) vaccine treatment grows and in 1956 vaccinations totalled 102,884 against 50,466 in 1955.

The completion of a Veterinary Clinic in September paves the way for increased diagnostic work into disease problems which have already been encountered in the field.

FISHERIES

By providing an important source of animal protein in the diet of a large number of people marine and freshwater fisheries

are of great consequence to Sarawak's economy. Sea fishing is by far the more important and it is pursued systematically by Malays, Melanaus and Chinese (*Heng Hua*) fishermen in the shallow coastal waters and estuaries of the larger rivers. A wide variety of fishing methods is used, each evolved by long trial and error under local conditions and these, though they may appear crude, are in operation relatively efficient. But the demand for fish remains unsatisfied and is steadily increasing, and steps must be taken to expand and modernise the industry.

The production of freshwater fish is very limited and has hardly gone beyond the hobby stage. The scope for expansion of this industry, to improve the protein-deficient diet of many of the interior peoples, is tremendous.

Worthwhile development of marine and freshwater fisheries during 1956 was not possible because of lack of staff. Latterly, a change of policy was effected. Much less emphasis was placed on routine fishing by the M.V. *Saripah* and more importance attached to the rôle of investigation and advisory work. A scheme was introduced to provide for the experimental installation of inboard engines in native fishing craft and two vessels in the Mukah district were so equipped. The costs of the engine and installation were made available to the owners in the form of an interest-free loan repayable over 5 years.

A study of fish-meal production costs revealed that the present small scale project is quite uneconomical. There is an imperative need to produce locally a cheap fish-meal as an ingredient in livestock rations, but the research necessary to supply the basic factual information for such a side-line must await adequate staff, a guarantee of regular large supplies of fish offal, and the acquisition of up-to-date equipment. The future of fisheries development both marine and freshwater is under review.

FORESTRY

A full description of the natural forest, which still covers nearly three quarters of the land area of Sarawak, appeared in the 1955 and earlier Reports in this series. The Government's

forestry policy, and the principles governing the administration of the Department, are also set out in detail in the 1955 edition.

Exploration

Examination of the extensive coastal peat-swamps of the territory was continued. The swamps of the Simunjan River in the First Division were mapped in considerable detail, and found to be all Mixed Swamp Forest, mainly of fairly good quality. Exceptionally poor Mixed Swamp Forest, however, was found along the Empilas, a tributary of the Samarahan River, also in the First Division. In the Fourth Division the coastal belt of swamp between the Niah and Sibuti rivers was also found to carry Mixed Swamp Forest, almost half of it of very poor quality, and the remainder almost totally lacking in *ramin* (*gonystylus bancanus*), the most valuable swamp timber tree. Further inland in the Fourth Division, the swamps of Bakong and Karap were found to have only a narrow belt of Mixed Swamp Forest, less valuable types occurring at some distance from the main rivers.

In the Bintulu Section of the Fourth Division, the foothills and very steep slopes of the Merurong Plateau on the left bank of the Jelalong were explored, and most of the lowland *Dipterocarp* Forest was found to be of excellent quality. Later in the year a Forest Department expedition crossed the watershed from the Second to the Third Division, passing through the large Lanjak-Entimau Protected Forest. This country is extremely rugged and the forest is not rich enough to justify the very costly extraction methods that would be necessary to work it.

Constitution of Permanent Forests

558 square miles of forest were added to the permanent forest estate during the year, bringing the total area to 10,570 square miles, equivalent to approximately 22.5 per cent. of the land area of the country. The planned continuous belt of forest running across the headwaters of all the rivers from the Oya in the Third Division to the Kemena in the Fourth Division was completed; this forest belt has a total length of just over 100 miles and a total area of 1,450 square miles.



The beach at
Bako National
Park, in the First
Division (v.1.57)

Gathering clonal rubber seedlings at Tarat Agricultural Station, near Serian in the First Division, for distribution to approved applicants under the Government subsidised rubber replanting scheme



Forest inventories

The soils, and consequently the vegetation types, of Sarawak are so varied, and often so poor, that proper management of the permanent forests on a basis of sustained yield is impossible unless stock-maps are carefully prepared. The method generally used is to make a preliminary map from aerial photographs, and to check the interpretation and assess the quality of the forest by the detailed examination of sample strips. The area covered by such surveys during the year was 573 square miles, principally in the Second and Fourth Divisions. A great deal of assistance in this work is received from the Forest Air Survey Centre of the Directorate of Colonial Surveys, which continued work on preliminary sketch-maps of several important forests.

Working Plans

In the Second Division, plans of management for the swamp forests of the Sebuyau and Saribas working circles, with a total area of 109 square miles, were completed and brought into force. In the Fourth Division the small mangrove forest of the Kuala Sibuti Forest Reserve, which is being exploited for charcoal, was also brought under a plan of management.

Silviculture

Sarawak relies mainly on methods of natural regeneration for the rehabilitation and improvements of its forests, and silvicultural works by natural system were carried out over areas totalling 939 acres during the year. The formation of plantations is on a small and still mainly experimental scale.

Forest Industries

At the end of the year there were 63 licensed sawmills working in the country. The total cut of commercial wood, in terms of round timber, was 445,000 tons of fifty Hoppus feet, as compared with 391,034 tons in 1955. Of this total, approximately 81% was exported, and timber exports, which are summarised in the following table, were valued at \$19,064,435 f.o.b. as compared with \$21,962,081 in 1955.

Destination	Sawn timber Tons of 50 cu. ft.	Round timber Tons of 50 Hoppus ft.	Total equivalent in round timber Tons of 50 Hoppus ft.	
			1956	1955
United Kingdom	56,698	1,370	114,766	134,190
Australia	24,917	13,182	63,016	65,854
Hongkong	1,575	44,126	47,276	50,076
Borneo ports	6,210	4,271	16,691	19,004
Germany	2,008	4,053	8,069	12,901
Singapore	425	356	1,206	10,249
Netherlands	3,548	4,459	11,555	10,096
Egypt	—	111	111	6,725
Italy	503	3,711	4,717	2,315
Belgium	2,043	214	4,300	2,225
South Africa	263	—	526	1,086
Denmark	1,608	63	3,279	712
Japan	—	—	—	360
U.S.A.	991	48	2,030	359
Others	1,444	947	3,835	701
Total	102,233	76,911	281,377	316,853

The United Kingdom, which is by far the most important market, is almost entirely interested in the timber of *ramin* (*gonystylus bancanus*). The fall in demand and price for this timber, caused by the recession in the United Kingdom furniture industry during 1955, continued throughout the year. From August onwards, at the request of a substantial majority of *ramin* producers, export restrictions were imposed in an attempt to prevent the accumulation of stocks of this timber in Sarawak. The restriction is regulated by the Conservator with the assistance of an Advisory Committee consisting of a number of leading members of the timber industry.

The Forest Department has little control over most kinds of minor forest produce except when these are collected in permanent forests. The most important are canes, cutch, damar, *getah jelutong* and other wild rubbers, illipe nuts and palm sugar. Good illipe nut crops occur only at irregular and rather long intervals, and production during 1956 was negligible. The f.o.b. value of minor forest products exported, details of which are given in Part II Chapter V, was \$2,914,301 as compared with

\$3,038,646 in 1955. Revenue on account of minor forest products amount to \$45,000 in Forest Department royalties and permit fees, and \$288,030 in export duties.

Research

The principal current local research projects are—

- (1) A general study of the composition and ecology of peat-swamp forests.
- (2) Studies in the management of Mixed Swamp Forest.
- (3) Studies of *kerangas* soils, with particular reference to their variation and potential use.
- (4) Studies of the composition and ecology of *kerangas* forests.
- (5) Spot tests of the suitability of various timber species for planting on poor *kerangas* soils.

Of these projects, the swamp forest studies have now reached an advanced stage, and their completion awaits the data from a number of experimental plots. The Soils Expert who (under the Food and Agricultural Organisation Technical Assistance scheme) had been seconded to Sarawak for the study of *kerangas* soils completed his work late in the year, and this work is now being followed up by ecological studies.

One other noteworthy research project was the investigation, at the Laboratorium Himmelheber, in Germany, of a number of Sarawak woods for the manufacture of particle boards. Most of the samples investigated, and particularly *alan* (*shorea albida*), were found to be suitable for this purpose.

NATIONAL PARKS

The National Parks Ordinance, enacted in 1955, became effective in February 1956, and at the same time a Board of Trustees was appointed under the chairmanship of the Conservator of Forests.

The Bako National Park of approximately eight and half square miles was constituted later in the year, and an extension of about two square miles is under preliminary notification. The park covers a rugged and very scenic peninsula at the mouth of the Sarawak river, about twenty miles from Kuching. It offers

excellent facilities for quiet holidays, with good bathing, walking and climbing. The vegetation and the bird life are of great interest, but terrestrial animals are poorly represented.

A small rest-house and staff-quarters have been built in the park, and paths, totalling nearly 15 miles and leading to the most interesting points, have been made. Scientific studies of the flora and fauna are in progress.

MINERAL RESOURCES

The main mineral resources are oil, gold, coal, stone, phosphate, bauxite, antimony and mercury. Production is shown in the map facing page 62 and production in the table on page 64.

MINERAL RESOURCES WORKED

Sarawak output of minerals and mineral products during 1956 consisted of oil, gold, phosphate, bricks, lime and stone. Their estimated value was \$5,408,740, and it is estimated that just over \$7,000,000 will be collected by Government in company taxes, royalties, and mining rents. Mineral exports, which consisted of oil and gold, were valued at \$357,163,201. Most of the oil exported came from Brunei, was piped to Sarawak, and some of it treated at the Lutong Refinery; exports consisted mainly of crude oil but a variety of oil products were also shipped. The oil industry, a Shell Group organization, operates on a large scale using modern methods. The other mineral industries are mainly small Chinese concerns; there are four gold mines in operation in the Bau District of west Sarawak. Building materials are produced in Kuching, Sibu and Miri.

Mining leases in 1956 totalled eight and covered 1,429 acres; this is the only land in the 47,000-square-mile territory reserved for mining, excluding oil rights which are held over the whole country by Sarawak Oilfields Limited. The search for oil was continued energetically by Sarawak Oilfields Limited. Aluminium ore was further tested and 2 exclusive prospecting licences were issued to Sematan Bauxite Company and approval in principle given for the issue of a mining lease. Antimony and gold prospecting was done in the Bau District where four prospecting licences for antimony and one for gold were issued. In the Kapit

area of the Third Division a licence to search for gold and uranium was issued. Several commercial concerns showed interest in the ilmenite-zircon black sand near Bintulu and in working the Batu Gading limestone in the Fourth Division.

Oil

Sarawak has exported oil for over 40 years, and there was a small production even before large scale shipments started. The 1956 output from Miri field totalled 70,616 long tons, valued at \$3,758,040; the overall output from this field is decreasing, although this year there was a small increase compared with 1955. The oil was obtained from 179 pumping wells, the depths of which range from 300 to 3,050 feet; it comes from Middle and Upper Miocene sands.

Oil from British Borneo is exported via Lutong in Sarawak, and 5,578,761 long tons valued at \$357,101,464 were shipped; most was crude oil, but in addition enriched crude gasoline, diesel fuel, kerosine, gas oil, isobutane concentrate, naphtha, and Lutong residue were exported. The Lutong refinery output in long tons during 1956 was gasoline 476,284; kerosine 79; gas oil 5,282; diesel fuel 1,211,202; Lutong residue 635,356; naphtha 102,754; and isobutane concentrate 11,158.

During 1956 about \$31,500,000 was spent on the search for new oilfields in British Borneo, and a considerable proportion of this sum was used in Sarawak. No new discoveries of oil or gas were made, but important additions to existing information resulted from the exploration programme and are valuable for assessing prospects. Geologists of Sarawak Oilfields Limited completed their reconnaissance work in the hinterland of south-east Sarawak and geological surveying was limited to the Fifth Division. Detailed seismic work was done in the Balingian and Mukah area where the investigations are nearing completion; the picture obtained by previous seismic work and by exploration drilling is being re-evaluated. Exploration drilling continued but no oil was found; the hole at Bakam 3 reached a depth of 8,889 feet, that at Tatau 2 penetrated 5,006 feet, and Balingian 3 was stopped at 6,502 feet,—these were stratigraphic investigations made mainly to obtain geological information. The test hole Selungun 1 reached 7,374 feet penetrating mostly hard imper-

meable sandstone; no oil was found. This drilling concludes a long and costly search for oil in the area extending from Bulak Setap and Subis to Bintulu; since 1948 about \$29,000,000 has been spent in testing the oil prospects in the Setap Group of Lower Miocene sediments in this area.

The search for oil is now being concentrated in the offshore area, and at Siwa, southwest of Miri, a platform has been built in the South China Sea where drilling will start in early 1957. The location was selected as a result of geophysical surveys which included seismic, gravity, and sea-bed sampling, and also echo-sounding investigations and a small amount of experimental refraction shooting.

Gold

Production in 1956 totalled 606 fine ounces of which 599 fine ounces valued at \$61,737 were exported; royalty paid was \$3,087 and rents yielded \$1,439; the output in 1955 was 463 fine ounces. During 1956 four small Chinese mines were producing gold in the Bau District.

Phosphate

Production during 1956 was 385 long tons, valued at \$63,890 and a royalty of \$10,441 was paid to Government. It is an important resource, being a valuable fertilizer situated in a region where agriculture is the main occupation, and where much of the soil is poor. Phosphate is worked on a small scale for local use at a number of places, and the largest deposits, at Niah Caves in Sarawak, are worked under the supervision of the Department of Agriculture. Guano is common in a number of limestone caves in the country, but the deposits are smaller than those at Niah.

Niah Caves are estimated to contain 29,000 tons of phosphates; they consist of approximately two miles of explored passages and cover an area of approximately twenty-four acres; small streams and water seepages from the roof are common. The phosphate deposits originate from the accumulation, during thousands of years, of bats and swift droppings and insect remains; reaction with limestone has produced rock phosphate. Guano more than six inches in thickness covers about 150,000 square feet in the caves; the average depth of the main occurrences is eleven feet, and the greatest depth of phosphate found was twenty-nine feet.

Building Materials and Stone

Bricks, lime, stone and gravel were produced; the value of the 1956 output is estimated at about \$1,525,073.

This industry is run mainly by Sarawak Chinese, and serves local requirements round Kuching, Sibü, and Miri. Kuching, in the First Division and in the most developed part of the country, had the largest and most varied production of constructional materials. The clay and sand used for brick and tile manufacture came from the valley of the Sarawak River, and the limestone used for making lime from Gunong Staat. Building materials were also produced at the other two population centres of Sibü in the Third Division, and Miri in the Fourth Division.

Stone production recorded in 1956 was 95,293 cubic yards with an estimated value of \$784,537. Most of the stone was used for road construction and road repairs. Since 1951 Sebuyau quarry in the Second Division, Aup quarry in the Third Division, and Batu Gading quarry in the Fourth Division have all been opened. Sebuyau is accessible to water transport, and can supply the surrounding region including the Rejang estuary. It is estimated that there is 13,000,000 cubic yards of first-grade, readily workable granite, in the part of Sebuyau hill where the Public Works Department are developing their quarry; production in 1956 was 27,668 cubic yards. The secondary quarry at Aup is near Sibü town, and although tropical weathering has resulted in a cover of overburden which has to be stripped, some of this material can be used locally for fill, and the quarry provides a useful local stone supply for the town yielding 17,232 cubic yards in 1956.

Stone supplies are of first importance for the new roads to be built, and are a major factor in determining their cost. A ninety-mile road from Serian to Simanggang has been planned. and during regional geological surveying in this part of west Sarawak a special search was made for roadstone, and fourteen possible quarry sites near the road-trace were discovered. A road from Simanggang to Sibü is being considered and a preliminary assessment of possibilities has been made. It appears from a stereoscopic examination of the air photographs, and the geological field work in parts of the area, that the best route would be one following the foot hills and linking Simanggang, Betong, Saratok,

Roban, Sarikei and Binatang. During geological mapping in this area a search for possible sources of stone and gavel along this route is being made.

MINERALS INVESTIGATED

Minerals described briefly below have been investigated, but were not mined during 1956. In the past there has been a considerable production of coal, antimony ore, and mercury ore, of which details are given in the report of the Geological Survey Department for 1949.

Aluminium ore (bauxite) was discovered during 1949 in west Sarawak by the Geological Survey, and was prospected from 1950-52 by geologists and mining engineers of the British Aluminium Company Limited, but no mining was done although over 5,500,000 tons of ore was proved. The main deposits are at Munggu Belian west of Sematan, and at Bukit Gebong about five miles south-southeast of Sematan; a small deposit occurs at Tandjong Serabang and there are a number of other less accessible occurrences.

A local company, Sematan Bauxite Limited, has been formed in Sarawak, two exclusive prospecting licences were issued to the company, and during the year further tests of the bauxite were made. Approval in principle was given for the issue of a mining lease, and the Governor-in-Council has approved the expropriation, with due compensation, of 42.5 acres of alienated land, which the owners would not agree to sell at a reasonable price.

Coal

The best known coal deposits are at Sadong, the Silantek-Abok area, and in the Bintulu and Mukah districts; to date over thirty coal occurrences have been reported in Sarawak. During 1956 one general prospecting licence for coal was issued over the Silantek-Abok area in west Sarawak. Most deposits consist of lignite, but some higher grade coal occurs. Many of the deposits are small, consist of thin or steeply dipping seams, are isolated by communication difficulties, or there are other factors making mining unattractive. Development has been hindered by inaccessibility, competition from coal exported from Europe, and the small market in the country itself.

Distribution of SARAWAK MINERAL RESOURCES

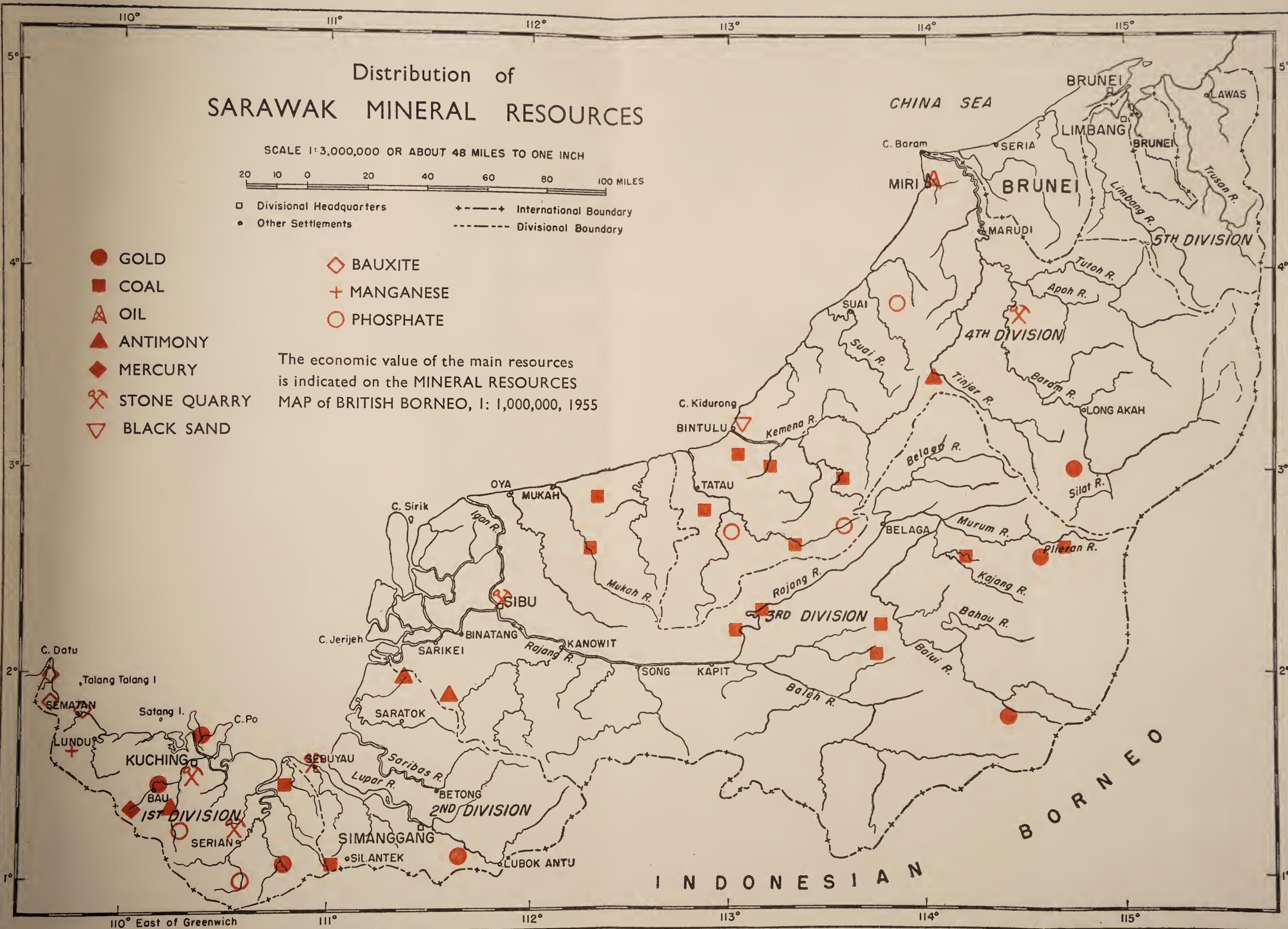
SCALE 1:3,000,000 OR ABOUT 48 MILES TO ONE INCH

20 10 0 20 40 60 80 100 MILES

□ Divisional Headquarters + - - - + International Boundary
• Other Settlements - - - - - Divisional Boundary

- GOLD
- COAL
- ▲ OIL
- ▲ ANTIMONY
- ◆ MERCURY
- ✂ STONE QUARRY
- ▽ BLACK SAND
- ◇ BAUXITE
- + MANGANESE
- PHOSPHATE

The economic value of the main resources
is indicated on the MINERAL RESOURCES
MAP of BRITISH BORNEO, 1: 1,000,000, 1955

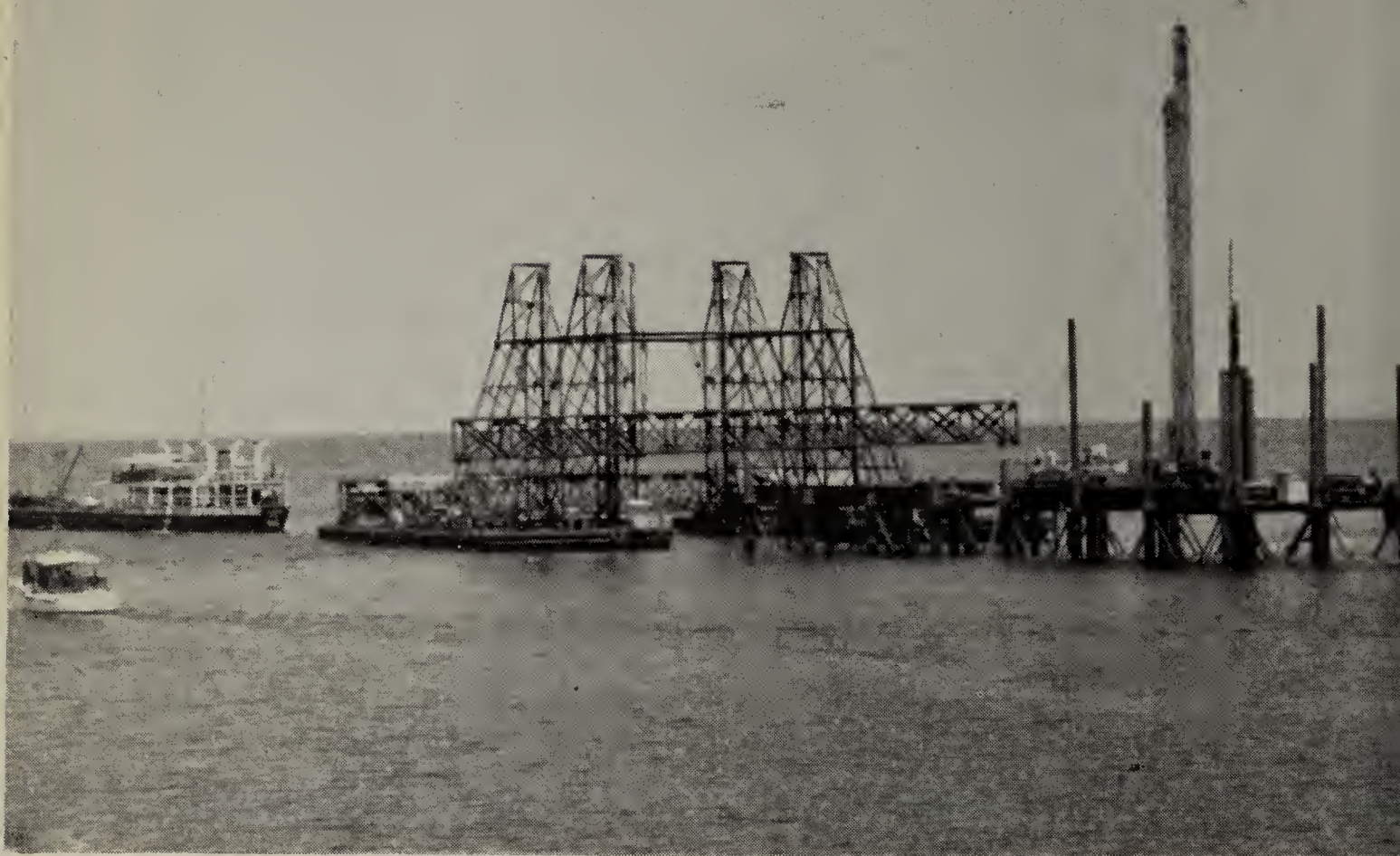




GSIS

At Bijat in the Second Division more than 2,000 acres of land are under intensive wet-padi cultivation. The Department of Agriculture maintains demonstration plots there and these pictures show work in progress at one of the plots





The marine oil-drilling platform at Siwa, about 18 miles southwest of Miri



Antimony

The main deposits of antimony ore are in Upper Sarawak and consist mostly of the sulphide, stibnite. During 1956 there was no recorded mining of this mineral but four general prospecting licences were issued for the testing of deposits in the Bau district, and samples of ore were received from occurrences in the Rejang and Tinjar valleys. A detailed examination of the lower Rejang occurrences was made in 1956 and these are described in this year's Geological Survey Annual Report.

Mercury occurs mainly as the sulphide, cinnabar, but small amounts of the metal itself have been found. During 1956 no ore was worked. A new occurrence was found near Engkilili during geological surveying and tested but it showed no economic promise.

MINERAL RESOURCES WORKED IN 1956

<i>Mineral</i>	<i>Production</i>	<i>Remarks</i>
Oil	70,616 long tons	Valued at \$3,758,040; royalty estimated at \$438,201. Oil exports from Sarawak totalled 5,578,761 long tons valued at \$357,101,464 and included gasoline; diesel, kerosene, gas oil, fuel oil, and crude oil. Most of this oil was produced in Brunei but piped to Sarawak where some of it was treated at Lutong Refinery before being exported
Gold	605 fine ounces	Exports consisted of 599 fine ounces valued at \$61,737; a royalty of \$3,087 was collected, and mining rents yielded \$1,439. The output came from 4 mines in the Bau District
Phosphate	385 long tons	Valued at \$63,890; royalty paid was \$10,441. Extracted from Niah Caves, Bukit Subis, Fourth Division
Bricks	2,201,000 bricks	Estimated value of bricks made is \$287,550. The output of concerns at Kuching was 478,000 bricks; around Sibu companies produced 935,000 clay bricks, and at Miri companies made 788,000 bricks
Lime	315 long tons	Estimated value \$34,450. Made in the Kuching area by Chop Mong Soon, and Ban Hin Company
Stone	146,649 cubic yards	Estimated value approximately \$1,101,869. This stone was produced mostly in the First Division coming from Serian road quarries, the 7th Mile quarry, and Stapok quarry. In the Second Division Sebuyau quarry yielded about 27,668 cubic yards, and the Third Division the production from Aup quarry was about 17,232 cubic yards
Gravel	9,597 cubic yards (estimated)	Estimated value \$101,204. This gravel was worked in the Third Division from the Rejang valley
Values are in Malayan dollars, M\$1 being worth Sterling 2s 4d		

VIII

CO-OPERATIVE DEVELOPMENT

THIRTEEN new Co-operatives, with a total membership of 839 members on the 31st December, 1956, were added to the Register, and five Rural Stores, two Padi Mills, two Savings (Cash) one Rural Credit, one Padi Savings and two Padi Savings and Loan Societies. There were eight cancellations of registration, against one of which, a Rural Stores, an appeal was made to the Governor before cancellation became effective. At the end of the year there were 150 societies on the Register.

Throughout the year sago prices remained very low. As a result, the economy of the sago producers continues to be adversely affected, particularly among the Melanau population of the Mukah District. Many of them, dependent on the one crop for their livelihood, have sought work elsewhere, often as labourers in timber extraction and sawmills, and so a falling off in membership and deposits among members of Melanau Rural Credit and Savings Societies has been inevitable. Cash Deposits elsewhere show some increase on 1955, but not to any marked degree.

Because of the relatively good prices of rubber the majority of Rural Stores were able to increase their turnover. Some of the more recently formed stores found themselves in financial difficulties but this was due more to a failure in co-operative practice than to an actual shortage of cash. By the end of the year, the position had much improved.

The padi harvest in 1956 was a poor one and padi co-operatives were affected. The amount of padi passing through Co-operative padi mills was considerably less than in 1955, and in Padi Savings Societies in some areas loans of padi to members increased. A new type of society, a padi saving and loan society, was introduced in 1956, in which a member can borrow cash as well as padi. He may borrow cash for planting and cultivation expenses up to three-quarters of his cash savings in the society but the loan must be repaid in padi the following season at harvest time. There is reason to believe that padi producers not

only desire but need larger loans than the existing rural credit societies can supply and it has already been proved in existing padi savings societies that there is relatively little difficulty in the repayment of loans in padi, but this is not always so in the case of cash. Two such societies were registered in 1956 but it is too early to say whether this type of society will be successful.

The Co-operative Central Bank continued to function much as in 1955 in safe-guarding and investing the savings of some 116 societies and in acting as a forwarding agent for some of them. The demand for short time credit remains limited.

Co-operation in Sarawak continued to be produced as a quarterly both in a tri-lingual version (English, Malay and Dayak) and separately in Chinese. In August the post of editor was filled and work has been considerably eased; but translation still takes much time.

Because of unfilled vacancies until the latter half of the year, no staff training courses were held until November. From 19th November to 8th December an intensive course for probationary members of the Field Staff and Audit Section was held, followed by Lower Standard and Middle Standard Examinations. One Senior Supervisor out of the three sitting for it passed the Middle Standard Examination. No probationers passed the Lower Standard. These results are not impressive but the majority of those taking the Lower Standard had not been long in the Department. Departmental Conferences were held at Kuching, Sibul and Miri.

In August Mr. Peter Goullart, an I.L.O. Co-operative Expert, left Sarawak after completing his one-year mission. He had travelled extensively among the Chinese in many parts of Sarawak and his journeys did much to interest the Chinese in co-operation. A number of new Chinese Co-operatives can be attributed to his work.

The Commissioner for Co-operative Development paid a brief visit to Malaya in April to discuss matters of mutual interest with the Commissioner for Co-operative Development, Malaya, particularly in regard to facilities for staff training; and in June he visited Hong Kong to study and report on the Fish Marketing Organisation there. The Assistant Registrar, Miri, while on leave in England, attended the Co-operative Summer School for Co-operative Staff at Oxford.

IX

SOCIAL SERVICES

EDUCATION

THE main development in education during the year was the putting into operation of the new system of financing Aided Schools. This system had been outlined in a White Paper which received the approval of the Legislature in September 1955. A Grant Code embodying the proposals of the White Paper was passed by the Governor-in-Council in the following month. At the same time the Education Department sent circulars to managements, offering guidance on the implementation of the scheme and inviting schools to apply for aid.

Under the new Grant Code, approved recurrent expenditure in Aided Schools, after deducting revenue from fees at rates prescribed by Government and after allowing for a percentage of remissions of fees, is met entirely from public funds. For approved capital expenditure, up to fifty per cent of the cost may be met from public funds. Teachers receive the same pay that they would receive in the Government Service; their appointment, transfer and dismissal are subject to the approval of the Director of Education. These arrangements limit the financial responsibilities of managements to the finding of a proportion of approved capital expenditure; it is therefore no longer necessary for managements to raise funds for recurrent expenditure by voluntary subscriptions. Teachers benefit by receiving Government salary scales and gain greater security in a reasonably assured career. In nearly all schools the prescribed rates of fees result in an overall reduction in the amount of fees paid.

At the end of 1955 there were some six hundred schools in the country of which all but 38 were managed by voluntary agencies or local authorities and were therefore eligible for grant. It was extremely doubtful whether Chinese Schools, which constitute by far the largest part of the school system, would apply for the new grants. Late in 1955 these schools requested and obtained an extension of the time limit for the submission of

applications and it was not until the end of November that applications began to be received. By the end of the year almost every school in the country had applied. Recurrent grants are payable quarterly in advance and it was therefore necessary to ensure that every school admitted to the Aided List received the first quarter's grant in time to pay staff salaries by the end of January 1956. Owing to difficulties of communication and lack of postal services in rural areas instructions often take a month or more to reach schools in the remoter parts of the country. The Department was therefore faced with the task of assessing the correct salary, on Government scales, of nearly 2,000 teachers, and of calculating the grant-in-aid for some 550 schools, in the very short time that was left, if the necessary information and funds were to reach schools before the end of January. In view of the uncertainty whether the grants would be accepted it had not seemed justifiable to engage and train additional clerical staff in anticipation of the acceptance of the grants.

The assessment of the "staff quota" for each Aided School, that is to say, the number of teachers to be employed in any school, raised a number of problems but the main difficulty here was caused by the unexpected increase in enrolments, referred to below, which caused many schools to request approval late in January for additional teachers.

The calculation of teachers' salaries and allowances provided complex problems. Before the introduction of the new grants most Chinese schools had been either unaided or had received only nominal amounts of assistance; the salary of their teachers was a matter between the management and staff. It became apparent at the beginning of 1956 that the evidence produced by teachers to show their qualifications and previous teaching experience was often insufficient for the accurate calculation of salary on the Government scales. A very large number of queries were received from teachers disputing the Department's assessment of salary. The first complaint to be received was from a teacher who had previously received \$190 per month and was not satisfied with his new salary of \$350 on the Government scale. A comparatively small number of teachers however had formerly received higher salaries than they became entitled to on the government scale. For these teachers a "Standstill Allowance" was paid to bring their new emoluments up to the level of their

former pay. A number of unforeseen complications arose in the calculation of this allowance.

In accordance with recommendations made in the Woodhead Report, untrained teachers who had been teaching satisfactorily for at least twelve years before the coming into force of the new Code became eligible to enter the appropriate scale for certificated teachers. A scheme of Responsibility Pay was also introduced for headmasters, senior assistants and specialist teachers. The staffs of Aided Schools became entitled to Cost of Living Allowance and House Allowance on Government rates. There was a good deal of misunderstanding about House Allowance, resulting in much correspondence, and the news that this allowance was abolished under revised terms of service introduced later in the year was received in the Department with satisfaction.

By the end of January all schools had received a simple form of approved estimate of expenditure for the year, which included a statement of the pay and allowances of each teacher, and payment of the first quarter's grant in advance.

In the ensuing months a very large number of queries were received from managements and teachers, a few of which arose from errors and omissions made by the Department in the haste of preparation. By the middle of the year the majority of queries had been settled and the flood of correspondence was beginning to subside when the Salaries Commission published its report and in September a complete revision of salaries and terms of service was approved by Council Negri. Teachers in Aided Schools became eligible for the new terms and salaries, which included equal pay for men and women. A circular was issued explaining to managements the application of the revised terms to their school staffs. The salaries and allowances of all teachers had to be re-assessed, and the grant for every school amended accordingly. Since the new terms took retrospective effect from January 1st 1956 it was also necessary to calculate and pay the arrears of salary due to the majority of teachers.

During the year important medical privileges were approved for teachers in Aided Schools, with special reference to teachers found to be suffering from tuberculosis and in need of a prolonged period of rest.

It was not possible during the year to introduce a Provident Fund for teachers in Aided Schools, but draft regulations were

in preparation. Nor was it found practicable to implement during 1956 a section of the Code which permits the payment of grant to managements for the purchase of text-books for loan to pupils in need of this assistance.

The payment of the new grants made it necessary for the Department to issue directives on a number of practices in schools which it had been possible formerly to overlook while these schools were receiving little or no aid from public funds. For example, a number of primary schools, though consisting apparently of 6 standards, have in fact normally admitted children below the age of six years and kept them for two years in Primary One. As the Grant Code is intended to provide aid for a six-year primary course, managements were instructed to separate their kindergarten classes from the primary school. Policy with regard to annual promotions and age limits was discussed in the Advisory Committee, referred to below, but no directive was issued during the year. Another matter which claimed attention during the year was the practice in some areas for children to attend an English school in the morning and a Chinese School in the afternoon. Apart from the educational objections to this practice it seemed necessary to point out that for financial reasons the grant could not be paid to a management to employ teachers for children who were already being educated in another Aided School. Care was taken to ensure that the necessary changes would be introduced with the minimum of disruption. Several matters affecting the terms of service of Aided School staffs required attention but it was possible to deal with only a few of these. Some teachers in Aided Schools have in the past regarded their school work as a part-time duty and have supplemented their incomes by other paid employment during the afternoons. It is hoped that now teachers are on Government salary scales managements will require them to devote the whole working day to their school duties. Some managements have appeared reluctant to make this requirement and would prefer the Department to regulate the exact hours of work and the detailed duties of teachers. It has been customary in many Chinese Schools for teachers to receive free firewood, the services of a cook, rent-free quarters and other perquisites. Requests were received during the year from Boards of Management for permission to collect regular monthly subscriptions from the bazaar to finance the cost of these privileges. Some Boards also requested approval to

The Inter-territorial Amateur Athletic Association Championships meeting, held in Kuching on 21st July 1956. The teams from North Borneo, Brunei & Sarawak assemble at the opening of the meeting



Lai Swee Yian



Hedda Morris

Science class in progress at St. Joseph's School, Kuching

raise money by monthly voluntary subscriptions to finance the employment of additional teachers in excess of the staff quota or to meet recurrent expenditure on a more lavish scale than provided for under the grant. Most of these requests had to be refused. It was not thought justifiable to approve the raising of funds for recurrent expenditure by monthly public subscriptions. But approval was given, under certain conditions, for Boards to raise limited sums by a yearly appeal to cover the cost of such details of recurrent expenditure as the entertainment of guests, the cost of prizes and other items which might not be payable from the grant-in-aid.

After one year's experience, it is possible to make a provisional assessment of the effects of the new Grant Code. School enrolments increased very sharply at the beginning of 1956 when the new Code came into operation. From 1948 to 1954 enrolments had risen fairly steadily by an average yearly increase of 3,200. In 1955 the increase was 6,700. In 1956 the increase was over 10,000. How far this large increase in 1956 was due to the grants is difficult to determine. Undoubtedly the new grants enabled some managements, especially local authorities, to open new schools which they would otherwise not have been able to afford. It seems likely also that the reduction of fees induced many parents to retain in school children whom they would otherwise have withdrawn. Capital grants, referred to later, had an effect on this expansion by assisting managements to provide the additional classrooms and furniture. It seems possible also that the introduction of Government salary scales made it easier for managements of Private (Village Committee) Schools to recruit additional teachers.

Managements have been relieved of some of their more serious financial anxieties by the new recurrent grants. A few managements however which were in debt at the end of 1955 were faced with difficulties, under a controlled system of expenditure and income, in finding means to pay off outstanding debts.

By and large, teachers benefitted considerably from the new terms of service. A greater sense of security and contentment in the profession was reported by various observers. The introduction of the new scales, which differentiate between trained and untrained teachers, led to a demand, not hitherto very noticeable, for training courses. At the end of the year the number of

requests for transfers of teachers from one school to another was still very large and in many cases powers under the Grant Code were exercised to refuse these applications in an effort to reduce the "general post" which used to take place in Chinese Schools at the end of every year.

The new Code brought the Education Department and managements of schools into closer contact than before. To obtain full value from the new system and this closer degree of contact, a much larger supervisory staff is needed. Unfortunately efforts to recruit additional supervisors were only partially successful. In the Fifth Division, welcome assistance in the supervision of schools was provided by the Government of Brunei who made available the services of some experienced Education Officers.

The Grant Code permits payment of capital grants up to a maximum of fifty per cent of the approved expenditure. A sum of \$4½ million has been included in the Development Plan for the payment of capital grants. A number of schools received capital grants during the year, many of which were for the cost of furniture to meet increased enrolments. Towards the end of the year applications for building grants towards projects planned for 1957 and 1958 began to be received, some of them involving considerable sums of money.

Much time and thought were devoted to advising managements on their building plans. The staff of the Education Department, however, is not qualified to comment on architectural and building problems, and the Public Works Department, hard pressed by other commitments, could devote only a limited amount of time to the scrutiny of Aided School building plans. The Public Works Department was therefore authorised to recruit an additional Assistant Architect to be employed on the building programme of Government and Aided Schools. By the end of 1956 efforts to recruit the architect had not been successful.

The introduction of the new system of grants, coupled with the large increase in enrolments and the application to Aided Schools of the revised salary scales, were principally responsible for an increase of unusual magnitude in public expenditure on education. In 1955, total public expenditure on education, in the normal recurrent budget and under the Development Plan,

amounted to some \$1,576,000, (a little under £184,000). In 1956 expenditure made a more than four-fold increase to approximately \$6½ million (a little over £758,000). A post of Finance Officer, to be in general charge of the grant system, was created and it was expected that this post would be filled early in 1957.

As required by the Grant Code an Appointments Appeal Committee was constituted in each Division to hear appeals against the exercise of the Director's powers in respect of the appointment, transfer and dismissal of teachers in Aided Schools.

The new system of grants enabled Local Authorities to expand their school system. These authorities have a general responsibility for primary education in their areas. In addition to the schools—mainly vernacular schools for the indigenous peoples—which are directly managed by Local Authorities, other primary schools in their areas, under Mission, Private and Chinese managements, receive recurrent Government grants-in-aid through their Local Authorities. Several new native schools were opened during the year and there were demands for many more to be opened. Experience has shown, however, that the opening of new native schools under untrained teachers of low academic standard usually produces disappointing results. The problems involved in the extension of educational opportunities to the indigenous peoples were briefly discussed in the Sarawak Annual Report for 1955. As explained there, the sparsity of population in the rural areas and the lack of communications make it necessary to centralise primary schools and involve the regrettable need for boarding arrangements even at the lower primary stage. During 1956 an increased number of native primary schools began to provide for pupils from distant longhouses. The standard of boarding accommodation was often rudimentary and parents made individual arrangements about the supply of rice to their children, vegetables usually being obtained from the school garden. There is no doubt that these schools which serve more than one village and are therefore large enough to employ two teachers obtain better results than the very small schools serving a single longhouse, where one teacher is responsible for all four classes.

One local authority made an important decision by appointing its own "School Affairs Officer" to work in co-operation with the Education Department on the routine administration of the local

authority's schools. This appointment should do much to raise the efficiency of the Authority's school system, especially in such matters as the payment of teachers, collection of fees, and distribution of equipment. The same Authority was the first to open a school for Chinese pupils.

There are five Christian Missions operating in Sarawak all of which are engaged in educational work. Their schools fall into three main types, the large urban schools, the central schools and the small rural schools.

The large urban schools cater mainly for the Chinese population of the bazaar but provide also for some day pupils and boarders from the indigenous races. At these Mission schools in the main towns English is the medium of instruction. Most of these schools have secondary departments, from which a large proportion of the entrants to the Government service are drawn. At various outstation centres, Missions have established schools whose main function is to provide a boarding education for Dayak pupils but which also take day pupils from the neighbourhood. English is largely used in these schools which mostly have Junior Secondary forms. In small rural schools under Mission management a primary course is provided in the vernacular, English being taught as a subject.

Mission schools maintained progress during the year and there was some improvement in the staffing situation.

Results of the Cambridge School Certificate Examination, held in December 1955, showed that for the first time there were more than one hundred successful candidates from Sarawak. Twenty gained Division One and forty-six gained Division Two certificates. An immediate result was keener competition for awards of overseas scholarships.

The examination for the Sarawak Junior Certificate was held for the third time in November 1956. 266 candidates were successful. This certificate serves as a qualification for entry to branches of the Government service and to business houses, and for admission to various training courses.

The enthusiasm of the Sarawak Chinese for education has resulted in the establishment of schools in almost every centre of

Chinese population in the country where there are sufficient children. Most of these schools are controlled by committees elected annually by the local community. Enrolment in Chinese schools far exceeds enrolment in all other types of school. Chinese primary schools provide a six-year course, though in some rural areas most children leave after completing the fourth year. Chinese secondary education is given in Middle Schools. The Junior Middle course lasts three years and is followed by a Senior Middle course of three years. The Chinese "national language", Kuo-yu, is the language of instruction in Chinese Schools in Sarawak. Although increased attention is being given to the teaching of English, the standard reached is still too low to enable students from the Senior Middle schools to qualify for admission to available universities.

Common examinations for the Chinese Schools were held at three levels, at the end of the primary, at the end of the junior middle, and at the end of the senior middle stage. Most of the junior middle and senior middle papers were set and marked in Hong Kong. The common examinations are tending to raise the standards reached by many schools. In Middle Schools, however, managements are faced with difficult problems. There is a strong and increasing demand for places in these schools from pupils who have completed the primary course. A considerable number of those admitted are not suited for the very "bookish" type of education offered. Failures in the examinations are consequently numerous. Moreover the public does not sufficiently appreciate the shortage of teachers in this region qualified to instruct in Middle Schools. There is a real danger that unrestricted admissions and the lack of suitable teachers will lead to a lowering of standards in Middle Schools.

Some managements are still unaware of the need for careful planning and have failed to carry out with sufficient thoroughness the advice given on the registration of new pupils. Their estimates of new admissions have often proved wide of the mark. To cope with the unexpected increase in enrolment managements have had to erect emergency accommodation and seek additional teachers at the last moment.

At the end of the year a committee of nine was appointed by the Director of Education to survey the curriculum, syllabuses

and textbooks of Chinese schools and to make recommendations for improvement.

At one Middle School there was a students' strike as a result of which the management was taken over by a committee nominated by Government.

In the Third Division the Middle Schools' Principals' Conference held useful discussions. A number of associations were formed during the year by various groups of Chinese throughout the country with an interest in education.

Apart from some academic classes run in conjunction with the Batu Lintang Teacher Training Centre, the only Government Secondary School in the country is a small junior secondary school in Kuching for Malay pupils. The large urban secondary schools managed by Missions or Chinese Boards have limited boarding accommodation. With the growth of the primary school system for the native pupils and the expansion of the Chinese primary school system in rural areas the need has become apparent to provide additional secondary schools, with ample boarding accommodation, to serve both native and Chinese pupils. These schools would aim at producing bilingual pupils, proficient in English and at least one of the main local languages. Funds for the establishment of a nucleus of such schools throughout the country were approved during the year, and preparations were made for the opening of the first school, in temporary premises, to serve pupils in the Fourth and Fifth Divisions.

Teacher-training is carried on at Batu Lintang near Kuching, at a Centre which serves the whole country. The staff consists of a Principal, two Assistant Principals representing the Anglican and Roman Catholic Missions, and an assistant staff composed of local teachers and two teachers from the United Kingdom, one of whom is a woman teacher trained in Infant and Junior methods.

The co-operation of Government and Missions in training at one institution teachers for all types of schools is a most important feature of the Centre, where students of many races, religions and languages have successfully developed a mutual understanding and a corporate spirit.

All student teachers received free board, tuition and transport, and there is a system of personal and family allowances.

There are two courses at the Training Centre, both of two years' duration. One is for students with a primary education who will teach in lower primary vernacular schools. The other is for students who have completed a secondary education and will be teaching in the medium of English. Both courses include the study of English, for which there is a demand from all peoples, and some academic subjects, as well as a practical knowledge of teaching principles and methods and of school organisation. Emphasis is also laid on the need to maintain and develop traditional skills and other aspects of indigenous cultures. Religious instruction is arranged for both Christian and Muslim students, and chapels are provided.

The existing accommodation and staff at Batu Lintang has not made it possible to admit students for training as teachers in Chinese schools, other than as teachers of English. The need to train students to teach general subjects in the medium of Kuo-yu in Chinese schools has long been apparent. It was therefore decided to open a training centre at Sibü in the Third Division, using hatted accommodation, for intending teachers in Chinese schools from all parts of the country. The Centre will accommodate about 100 students of both sexes. All students will reside at the Centre and the courses will be of two years' duration. Students will be trained as teachers in Primary Schools and Junior Middle Schools. The staff will consist of teachers who have gained experience in England, Singapore, Hong Kong and in this country. Preparations were put in hand in 1956 and it was hoped to open the Centre early in 1957.

Vacation courses for teachers were held during the year. At Sibü a course for Chinese teachers was held for two weeks in June and July and attracted large numbers. Some four hundred teachers attended the main course. A course for native teachers was held in Kuching during the Malay School holidays and a similar course was held in Sibü in May, attended by eighty teachers; both these courses were very successful.

There is no university in Sarawak. Scholarships for further education and training overseas are awarded by the Government of Sarawak, and under schemes promoted by the Governments of the United Kingdom, Australia and New Zealand, and by other organisations.

Students studying overseas on Government and Colombo Plan scholarships, on courses lasting at least one year, increased from fifty-three to ninety-three. Private students continued to show a preference for Australia; thirty-nine were studying there in 1956.

Among the girls on overseas course were five taking degree courses in Arts and one in Medicine. Three were training in England as nurses and one was in New Zealand on a dental nursing course. One girl was taking a three-year course in Domestic Science and three others were on teaching courses.

Under the Technical Co-operation Scheme of the Colombo Plan, the Government of Australia had provided in 1955 an expert to survey the industrial occupations in Sarawak for which training is required and to make recommendations on the provision of such training. His report was received early in 1956. Soon afterwards Sarawak was fortunate to receive a visit from the Secretary of State's Adviser on Technical Education. As a first step towards implementing some of the recommendations of these two advisers, it was decided to create a post for a Supervisor of Technical Education. The post had not been filled by the end of the year.

The Kuching Municipal Council, the press, and members of the public expressed interest during the year in the possibility of various forms of technical education. It seemed doubtful whether the proposals put forward were practicable in view of the advice given in the reports mentioned above and it was decided to initiate no scheme until the arrival of the Supervisor.

Important visitors to Sarawak during 1956 were representatives of the Australian Government, the New Zealand Government, and the Canadian Government, who held discussions on educational and other schemes for which assistance could be given under the Colombo Plan. Valuable help in education had already been received from several governments, under the Colombo Plan, and this offer of increased assistance was warmly welcomed. Requests for help in various schemes were put forward for consideration by the governments concerned. At the end of the year information was received that New Zealand would provide three qualified teachers for the new Government Secondary School at Miri in the Fourth Division, which has been referred to earlier. The news was received with great satisfaction.

Land sports at Roban in the Second Division, October 1956. A tug-of-war in progress. Roban is a small and attractive town and bazaar some 30 miles up the Seblak River





Anti-malaria team spraying DDT inside a longhouse in the First Division under the World Health Organisation scheme, which began work in that Division in 1956 after a long, arduous and successful campaign in the First Division

In order that important matters of policy concerning schools may be considered by representatives of different types of school and by leaders of public life, an Advisory Committee on Education was formed. This committee has the right and duty to advise the Governor upon educational matters. It came into being at the beginning of 1956 and met twice during the year. Among the subjects discussed were: Selection for Secondary Education, Problems of Rural Schools, Allocation of Capital Grants, Teacher Training Courses, and Age Limits in schools.

The Adult Night Classes conducted in Kuching by the Sarawak Council for Adult Education continued to attract large numbers.

Radio Sarawak gave valuable assistance to the secondary section of the English Schools by broadcasting useful and stimulating material, in many cases related to and supplementing the school curriculum, in evening broadcasts. Plans were under consideration for the introduction of broadcast lessons to schools during school hours.

The British Council continued to do valuable educational work. One of their services which is much appreciated is the distribution of Teachers Book Boxes to 150 schools. The library service was expanded considerably by the use of funds from the allocation of \$250,000 in the Development Plan. The central library in Kuching was further enlarged and there were welcome accessions of both Chinese and Malay books. Active steps were taken for the establishment of libraries in Miri and Simanggang, while smaller libraries were planned for three other centres. A small library was opened at Bau. Stocks of books for the supply of outstation libraries were ordered and received. Further expansion of the existing library in Sibü was planned.

The Kuching Youth Club and the Sarawak Youth Council, both of which had been established in the previous year, were active during 1956. A Youth Centre was opened in Kuching. Two youth workers were sent on a course overseas and three delegates from the Sarawak Youth Council attended an international youth conference in Europe. The Boy Scout and Girl Guide movements reported progress during the year. Scoutmasters showed greater interest in training themselves for leadership.

Three received the Scout Wood Badge from Imperial Headquarters and several passed Part Two (Practical) in camp. Local Associations for the Girl Guides were started in Sibu and Miri. Two Guides were sent to England for training and at the end of the year five Guides were chosen to attend the world camp at Manila to be held in January 1957.

COMMUNITY DEVELOPMENT

Defined as "a movement to promote better living for the whole community with the active participation and, if possible, on the initiative, of the community", Community Development in Sarawak managed by a Committee of appropriate administrative and departmental heads under the chairmanship of the Deputy Chief Secretary, with a Community Development Officer as its Executive Officer and Secretary. There is no Community Development Department.

In 1956 the Committee begun work for the Kayan, Kenyah, Kelabit peoples of the Baram River and for the Land Dayaks of Upper Sarawak, an extension of to the Third Division of work for the Ibans has also been begun.

After five years of operation and some disappointment the Muara Tuang Malay scheme is about to be concluded. Among the results of the Scheme are adult literacy, a community hall, kampong paths, drains and bridges, and a loan fund for seasonal farm credit. The Administration and the Departments of Agriculture and Co-operation are active in the locality.

The Budu area development scheme in the Upper Kerian with three Europeans and a strong element of self-help, made good progress in all spheres, the most significant of which was the registration of the Budu Progress Society, a body destined to replace the European workers by 1960. Two potential young leaders have already been sent for training in the United Kingdom, entirely at the Society's expense and the cost of training five more abroad has been undertaken.

The European team thus gradually to be withdrawn from the Budu area began preparations to move across the Divisional boundary into the Upper Kanowit District where provision for a new pilot scheme as an outgrowth of Budu was approved.

After over two years without a Principal the Rural Improvement School presented a challenge to the new Principal and Assistant Principal, both appointed in February. To simplify its rehabilitation the course was halved to one-year's duration and reduced in content when the new course began in April. The seconded Lady Education Officer began a series of successful short homecraft courses for pre-marriage girls before returning to departmental duties late in the year.

Site preparations and building for a rural training centre in the Baram River and an area development centre at Padawan, Upper Sarawak, were carried out during the latter half of the year. The Padawan Scheme secured the services of a nurse and a craftsman from Britain.

A grant of funds was made to the Adult Education Council of Sarawak towards its work throughout the country.

PUBLIC HEALTH

The great feature of the year in the Medical Department was a very noticeable movement of emphasis from planning to doing. This is not to say that there was no more planning. Planning must of course go continuously on and plans are now being made for future implementation, but in 1956 many proposals which until then were words on paper became facts.

This was perhaps most noticeable in the case of new buildings in different parts of the country, but the most important development was almost certainly the change of the anti-malarial programme from an experimental pilot project to a country-wide eradication scheme. The anti-malarial professional staff of the World Health Organisation in Sarawak was increased from one to three and this made it possible to expand the spraying programmes in the First and Fourth Divisions and to form a new unit in the Third Division. Surveys were also started in the Second and Fifth Divisions and in Brunei. The total number of people protected against malaria by this work rose during the year from 22,000 to 65,000, but these numbers are not an exact indication of the extension of the work, and they are additional to those already protected against the disease in urban areas. The work in distant parts of the country was rendered possible by the assistance of the Royal Air Force, who made possible two parachute supply drops to parties during the year.

The increase of W.H.O. professional staff engaged on this work was matched by a very great increase in the number of Sarawak Government staff, which rose to fifty-four anti-malarial workers specially employed for this project during the year. A special establishment was approved and provision made in the 1957 estimates for it. Much of the work is still experimental and in different places different doses and frequencies of application of insecticide were used. The method of application adopted for DDT in the Fourth Division and Dieldrin in the First Division as a result of these comparative tests has been shown to stop completely the transmission of malaria. Since spraying started in the Baram in 1953 the parasite rate in children has fallen from over fifty per cent to below four per cent.

Scientific work is continuing with the object of assessing the relative efficiency of DDT and Dieldrin under Sarawak conditions and of measuring the susceptibility of the local anopheles to insecticides. The principal vector is *Anopheles leucosphyrus*.

Three Inter-territorial Malaria Conferences were held. The second was a technical conference at Marudi and the first and third were held in Kuching. They did much to establish co-ordination of the work in the three British Borneo countries and to clarify outstanding problems, the principal of which now facing us are—

- (1) Finding and training suitable personnel to supervise the expansion of the scheme to all the malarious area of this country;
- (2) Spraying of small farm huts or *sulaps*. These are tiny shelters which may be very temporary but which can be inhabited for months at a time;
- (3) Control of the importation of malaria from across the the frontier with Indonesia (Kalimantan);
- (4) Control of malaria in some nomadic tribes especially Penans.

The most important of the new buildings in progress during the year was the new Mental Hospital at the 7th Mile, Simanggang Road, Kuching. This is a modern establishment with accommodation for about 200 patients. Including quarters for the staff, it will cost more than \$2,000,000 of which three quarters is being found from Colonial Development and Welfare

funds. Another important building is the very considerable extension to the General Hospital at Sibu in the Third Division. This will raise the accommodation there from about 150 patients to about 350, and will provide additional outpatient facilities. In Kuching a large additional wing was built to the Nurses Home and additional quarters for other nursing staff were also completed. At the hospital a new midwifery unit was nearly finished at the year's end. Other new buildings completed during the year were dispensaries at Bau, Bintulu, Miri and Julau, headquarters for a travelling dispensary at Belaga and an enlargement to the dispensary at Betong. Building began on a new dispensary at Song.

The Medical Department now attends over ninety per cent of births in Kuching and this new unit is designed to provide modern facilities for normal delivery for mothers who will be expected to return home almost immediate afterwards and then receive visits from our domiciliary staff. The unit will also help the training of midwives of which there is further mention later.

At the Leper Settlement thirteen miles from Kuching the programme of building improvement was nearly completed and at the end of the year all the patients were housed in new hygienic buildings. Plans were well advanced and funds were provided to instal electric lighting and greatly to improve the water supply. The success of the Leper Settlement noted in previous reports continued during the year and exceeded expectations so that the total number of patients is decreasing rather more rapidly than we had anticipated. Negotiations proceeded with North Borneo over the possibility of some patients from there coming to the Sarawak Settlement.

Close liaison was maintained with North Borneo and Brunei medical activities. The Director of Medical Services paid visits to both countries and their Heads of Medical Departments visited Sarawak. An agreement was reached between the three Governments for the joint purchase of certain medical supplies in the hope of an increase of efficiency and a decrease in cost. Considerable progress was made towards unifying the syllabus, curriculum and standard of examinations for Nurses and Hospital Assistants and there was an exchange of external examiners.

An important new piece of legislation passed during the year was provision to open the dental registers for the admission of new dentists. There is only one fully qualified private dental practitioner in Sarawak, and the old unqualified but registered dentists are so diminishing in numbers that there are not enough available to serve the public adequately. After prolonged negotiation with the Sarawak Dentists Association it was agreed, subject to certain safeguards (to include a practical examination) to reopen the registers and admit a limited number of unqualified dentists. The Government maintains four fully qualified dental officers.

Schemes for training personnel for the medical and associated appointments were considerably increased, both overseas and in Sarawak. Two nurses are attending general nursing courses in the United Kingdom, two sanitary inspectors in New Zealand, four in Australia and three in Singapore. One went for a University course for Public Health Engineering at the University of Durham. Two Sarawak students were training in Singapore to be pharmacists. One went to the United Kingdom for training in radiography and two as dental mechanics in Penang. An unofficial arrangement was concluded with the University of Wales whereby the Welsh National School of Medicine will accept doctors from Sarawak and give them honorary appointments on the various specialist units for courses of training for higher degrees. Our local training schools for dressers, nurses, etc. increased their numbers and at the year end there were in training

13 Laboratory Technicians; 12 Dispensers; 38 Hospital Assistants; 44 Nurses; 66 Assistant Nurses; 12 Assistant Health Visitors.

The training schemes for local midwives and their male counterparts made notable progress. The midwife training scheme was considerably expedited by the great advance of Local Government and at the end of 1956 70 midwives were in training, nearly all from country districts. These girls come from very distant places. Some of them have a minimum of education but with very few exceptions they prove to be very bright and eminently teachable. They do a course of at least one year which includes a period spent on infant welfare and another period of domiciliary work. They then return to their own villages and in many cases are employed there by the Local Authority.

It is not possible at present to post fully trained personnel in all parts of the country and as an expedient it has therefore been decided to select suitable young men from distant villages and to train them in a very elementary practical way and send them back to work in their own villages. The scheme is a great success as far as the trainees are concerned. They do very well and there is a very great demand from outstations for more and more such men, but the whole arrangement is a temporary one, until fully trained personnel can be provided, and so the scheme is not being pushed too hard. A great deal of correspondence went on, with District Officers and others with local knowledge, about a suitable title for these men and it was finally decided to call them *Ulu Drisa*. At the year end there were 25 in training.

One medical officer returned from the United Kingdom after completing a special course in tuberculosis and took charge of tuberculosis work in Kuching, where the Anti-Tuberculosis Association of Sarawak, a voluntary body, was very active during the year. The Association completed detailed plans for the building of a small Convalescent Home.

Another specialist whose work should be mentioned is the Ophthalmologist who was employed jointly by the three British Borneo territories and travelled extensively. His report and the figures of his work, when complete, will show an amazing variety of types of ophthalmological work and a very considerable number of operative procedures.

SOCIAL WELFARE

The Sarawak Social Welfare Council is a voluntary body composed of representatives of all welfare interests in the country. It receives Government welfare funds and allocates these to meet welfare needs all over the country in accordance.

Welfare work is carried out by voluntary Committees of leading citizens of all races, who both use grants from central funds and raise money locally. These Committees administer their affairs in the way most suitable for these regions, but under a broad central policy. Each Committee may send a delegate with full voting powers to any meeting of the central Council.

In 1956 there were some interesting cases, e.g. the entry of a deaf and dumb child into a School for the Deaf, for general education, and the entry of Sarawak's first child into the Singapore School for the Blind. The Council also began its policy of a yearly return for all Sarawak children sent overseas. This renews their contact with home and ensures that a place is held open for them when their education is finished. Two blind children at Johore were the first to come, with success. Five crippled young people have received rehabilitation overseas, in conjunction with help from voluntary agencies abroad.

Two major projects opened, following the reconditioning of buildings purchased with Social Welfare Council and Government grants. The first was a Transit Hostel for country people visiting Kuching for medical reasons. It is run by the British Red Cross Society which supplies a Hostel Officer to help country visitors with their problems in a strange town. It accommodates 30 people in attractive central surroundings. The second building houses the Youth Club and is the Headquarters of the Sarawak Youth Council, to which the Social Welfare Council granted \$10,500 for running costs and the allowances of three delegates to the World Assembly of Youth Conference in Berlin.

Grants were made to the Sibü Benevolent Society (\$20,000) which maintains a home for the aged and a nursing home housing 59 inmates. This Society and the British Red Cross Society—to which Social Welfare Council granted \$15,383.60 and \$15,000 for the Hostel—raise large sums of money by their own efforts. The Prisoner's Aid Society (\$3,000) and the Salvation Army Home for Girls (\$7,800), and the Kuching Boys' Club and Hostel (\$5,000) received help towards their work. Food parcels, given particularly to sufferers from tuberculosis, cost \$17,963.83 in 1956.

Voluntary workers continue to give Sarawak's welfare pattern its strong thread of self-help and have shown in the past year a widening field of interest.

the Chief Justice
of the Combined
Judiciary of Sara-
wak, North Borneo
and Brunei,
supported by his
brother judges,
takes the salute
at the opening of
the new Supreme
Court and Council
Chamber in
Kuching on 23rd
February 1956



Lai Swee Yian

Colonel W. A. Muller, Inspector-General of Colonial Police, taking the salute at a march-past of the Sarawak Constabulary before the Secretariat in Kuching, on November 21st 1956



X

LEGISLATION

Laws

THE Ordinances and subsidiary legislation in force prior to the 2nd July, 1947, are in the Revised Edition of the Laws of Sarawak (6 volumes.)

All Ordinances and subsidiary legislation enacted subsequent to July 1947 up to 1952 are found in the Annual Supplements prepared under the Revised Edition of the Laws (Annual Supplements) Ordinance, 1947. These Supplements also contain the Imperial Statutes, Imperial Orders in Council, Royal Proclamations and Instructions applicable to the country.

The compilation of the Annual Supplements was suspended upon the coming into force of the Written Law (Simplified Publication) Ordinance, 1953, in that year, and the *Sarawak Government Gazette* was divided into parts as follows—

Part I Ordinances.

Part II

- (a) all the subsidiary legislation other than subsidiary legislation published in Part IV;
- (b) Acts of Parliament, Orders in Council and enactments made thereunder applicable to the Colony or published for public information;
- (c) Treaties or Conventions affecting the Colony or published for public information;
- (d) Letters Patent;
- (c) Royal Instructions;
- (f) Royal Warrants and Proclamations; and
- (g) Such Instructions of the Governor as the Chief Secretary may direct shall be published in this Part.

Part III Bills to be introduced into Council Negri.

Part IV All subsidiary legislation under the Municipal Ordinance, the Kuching Municipal Ordinance, 1952, the Local Authority Ordinance, 1948 and the Local Government Elections Ordinance, 1956.

Part V All other matters required to be published in the *Gazette* or published thereby for public information.

These Parts are separately bound as Annual Volumes at the end of each year. The Annual Volumes were produced at the same time as the Annual Supplements were abolished.

Legislation in 1956

Thirty-eight Ordinances were enacted. Twenty-four were amending Ordinances and the others were—

New	6
Consolidation and Repeal	6
Supply	2

Among the Ordinances enacted the following merit comment—

NEW ORDINANCES

Revised Edition of the Laws Ordinance, 1956

An Ordinance to make provision for the preparation and publication of a Revised Edition of the Laws of Sarawak.

Local Government Elections Ordinance, 1956

An Ordinance to make provision for the election of persons as Councillors to Local Councils. The Ordinance specifies the qualifications of voters and councillors and prescribes certain election offences.

Crown Proceedings Ordinance, 1956

An Ordinance to amend the law relating to the civil liabilities and rights of the Crown, to amend the law relating to the civil liability of persons other than the Crown in certain cases involving the affairs or property of the Crown, to remove doubts as to the availability of certain remedies and proceedings and for purposes connected with the matters aforesaid. This Ordinance enables members of the public if they do wish and subject to certain limitations to sue the Crown in tort or contract. Provision is also made introducing prerogative writs.

Fingerprints Ordinance, 1956

An Ordinance to provide for the taking and filing of the fingerprints, and for the proving of previous convictions, of accused and convicted persons. Under the Registration of Criminal Ordinance, which this Ordinance replaces, fingerprints could only be taken of persons convicted of certain specified offences.

Council Negri Elections Ordinance, 1956

An Ordinance to make provision for the election of Elected Members of the Council Negri and generally for the matters provided for in section 47 of the Sarawak (Constitution) Orders in Council, 1956. Provision is made for the constitution of Electoral Colleges and sub-electoral colleges. The Electoral Colleges are to consist of the 5 Divisional Advisory Councils and of the Kuching Municipal Council, the Sibu Urban District Council and the Miri Urban District Council and each is to elect a certain number of Elected Members of the Council Negri. The 5 Divisional Advisory Councils are to consist of members elected to their respective Councils by their sub-electoral colleges which are to consist of the Local Councils situate in the Division concerned.

ORDINANCES CONSOLIDATING AND REPEALING EXISTING LEGISLATION

Rice Control (Repeal) Ordinance, 1956

This Ordinance was repealed as it was no longer considered necessary. Adequate provision for the control of rice is contained in the Food Control Ordinance, 1952, and in the Customs Ordinance, 1953. Provisions have also been made vesting the property of the Rice Control Committee in the Government and empowering the Food Controller to exercise the powers formerly vested in the Committee relating to the importation and milling of rice and matters ancillary thereto.

Workmen's Compensation Ordinance, 1956

This repeals and replaces the Workmen's Compensation Ordinance, 1949, and increases the amount of compensation to workmen or their dependants who have been injured or killed in the course of their employment. The procedure for dealing with compensation has also been charged, and provides generally for settlement by arbitration instead of by the Courts.

Gambling Ordinance, 1956

This consolidates all the legislation relating to gaming, wagering and lotteries into one comprehensive measure but there is excluded from the definition of gaming games of mere skill and also a number of pursuits which are more properly described as sports or contests.

The Companies Ordinance, 1956

To consolidate and amend the law relating to Companies. This is based on the Hong Kong Companies Ordinance, itself based on the English Companies Act of 1929. Whilst not departing in any major principle from the old Companies Ordinance (Cap. 86) it fills in the procedural gaps demonstrated by the increase of commerce.

Evidence Ordinance, 1956, [and the Bankers' Books (Evidence) Ordinance, 1956]

These are complementary. The Evidence Ordinance repeals and replaces the existing Evidence Ordinance (Cap. 6) and is based on the Evidence Ordinance of the Federation of Malaya, which in turn is based upon the Indian Evidence Act, a well known Code which has been tried over a long period and has worked satisfactorily. Previously, with the exceptions contained in the Evidence Ordinance and elsewhere in English statutes of general application, the law of evidence has been the Common Law of England and it was felt that the almost entirely lay Magistracy would be better assisted by a comprehensive code of evidence.

Widows' and Orphans' Pensions (Amendment) Ordinance, 1956

This amends the Principal Ordinance to enable persons, who are now contributing under section 16 of the Pensions Ordinance (Cap. 22), to elect to become contributors under the Widows' and Orphans' Pensions Ordinance, 1949.

Medical Registration (Amendment) Ordinance

This amends the Principal Ordinance to enable exemption from registration to be extended to visiting specialists.

Registration of Dentists (Amendment) Ordinance, 1956

This amends the Principal Ordinance in four respects—

- (1) to permit, under certain conditions, the registration of of unqualified dentists;
- (2) to re-constitute the Dental Board;
- (3) to enable Dental Officers of Her Majesty's Forces and certain visiting dentists to be exempted from registration; and
- (4) to enable examinations to be prescribed for non-qualified dentists.

Criminal Procedure Code (Amendment) Ordinance, 1956

This makes a number of amendments which experience has shown to be necessary. The most important—

- (1) increase the special jurisdiction which may be conferred by the Governor upon a Magistrate;
- (2) allow of the taking into account by the Court, when considering sentences, of offences of a similar nature which the person convicted wishes to be taken into consideration and in respect of which he has not yet been tried;
- (3) confer upon police officers power to interpose to prevent the commission of all offences, not only, as previously, seizable offences;
- (4) place upon the police the duty of investigating all offences, not only, as previously, seizable offences (except when authorized by a Magistrate or the Public Prosecutor to investigate non-seizable offences);
- (5) permit the police to send a draft charge of an offence to a competent Court; and
- (6) permit of the introduction of a procedure whereby the Court may in its discretion accept and act on a plea of guilty in certain limited cases.

Kuching Municipal (Amendment) Ordinance, 1956

This amends the Principal Ordinance in order to make it applicable to elected Councillors who will now take the place of Councillors appointed by the Governor-in-Council. The boundaries of the Municipality have been amended so as to exclude from it kampong areas on the north bank of the Sarawak river. This has been done at the request of the inhabitants.

Sedition (Amendment) Ordinance, 1956

This amends the Principal Ordinance to extend the powers of the Governor-in-Council in order to enable him to impose a blanket ban on all publications which are calculated to have an effect contrary to the public interest.

Forest (Amendment) Ordinance, 1956

This amends the Principal Ordinance where experience has shown it to be necessary. Most important are those which provide for a District Officer to admit or in part disallow a claim in respect of forest reservation (before, the claim had to be admitted or disallowed in full) and for a refund of deposit to non-defaulting licencees.

Excise (Amendment) Ordinance, 1956

This puts right certain anomalies in the Principal Ordinance and amends provisions where experience has shown this to be necessary. Principal changes are

- (1) A person responsible for the care or management of premises is to be presumed to be the occupier but he may show that he is not.
- (2) A Senior Excise Officer may give a certificate that any liquid is dutiable and also may give *prima facie* evidence that a particular still etc. can be used in connection with distilling dutiable liquor.

Societies (Amendment) Ordinance, 1956

This amends the Principal Ordinance to give the Registrar of Societies a wider power to refuse permission for registration.

Medical Registration (Amendment No. 2) Ordinance, 1956

This amends the Principal Ordinance to provide that persons not having registrable qualifications may for special purposes be authorized to practise as medical practitioners.

Road Traffic (Amendment) Ordinance, 1956

This amends the Principal Ordinance in several respects, including—

- (1) to provide that reckless or dangerous driving which causes death shall be a separate and distinct offence and that a conviction for reckless or dangerous driving shall not bar a subsequent prosecution for causing death by such driving;

- (2) to provide that the trial of the offence of causing death by reckless or dangerous driving shall take place in the High Court.

Interpretation (Amendment) Ordinance, 1956

This amends the Principal Ordinance in various respects in order to assist the Commissioners in their task of preparing the Revised Edition of the laws. An important amendment permits the making of subsidiary legislation with retrospective effect but, in certain circumstances, precludes conviction for an offence committed before the legislation is published.

XI

LAW AND ORDER

JUSTICE

A PART from Imperial legislation, whether by Order in Council or otherwise, the law of Sarawak is found mainly in local ordinances and native customary law. Chinese customary law, chiefly in matrimonial and inheritance matters, is recognised to a limited extent, but only insofar as such recognition is expressly or by implication to be found in a local ordinance.

Where Sarawak law is silent, the Courts apply the common law of England and the doctrines of equity, together with English statutes to the extent permitted by the Application of Laws Ordinance, 1949. But English law is applied so far only as the circumstances of the country and its inhabitants permit and subject to such qualifications as local circumstances and native custom render necessary.

The Supreme Court

There is one Supreme Court of Judicature, consisting of a High Court and a Court of Appeal, for Sarawak, North Borneo and Brunei.

During the year one hundred and seventy-two criminal cases and three hundred and seventy-one civil actions were heard in the High Court as compared with one hundred and eight-seven criminal cases and three hundred and thirty-four civil actions in 1955. In the Court of Appeal five criminal appeals and thirteen civil appeals were heard as compared with seven criminal appeals and fifteen civil appeals in 1955.

The Lower Courts

The Courts presided over by magistrates are the District Court (Civil and Criminal); the Court of Small Causes (Civil); the Police Court (Criminal); and the Petty Court (Civil and Criminal). One legally qualified magistrate sits in Kuching and one in Sibü. The remainder are administrative officers who do magisterial work as part of their duties. Two Sarawak Government officers holding Government scholarships are now in legal training in

England. A third officer is pursuing legal studies in Australia under a Colombo Plan Scholarship. Another Government officer who had held a scholarship was called to the Bar in January, 1956. He is now doing duty as legal magistrate in Sibu.

In the exercise of their civil jurisdiction Courts of Magistrates have jurisdiction in every civil matter whereof the value in dispute does not exceed in the case of the Magistrates of the First Class five hundred dollars or where the Chief Justice by notification in the Government Gazette confers upon any magistrate special jurisdiction then in a Court presided over by such magistrate one thousand dollars; in the case of the Magistrates of the Second Class two hundred and fifty dollars; and in the case of the Magistrates of the Third Class fifty dollars. Courts of Magistrates have no jurisdiction in proceedings in connection with applications for partition of immovable property; the specific performance or rescission of contracts; the cancellation or rectification of instruments; the enforcement of trusts; and in connection with applications for declaratory decrees. In the exercise of their criminal jurisdiction the powers of the Courts of Magistrates are as provided in the Criminal Procedure Code.

Apart from the Courts mentioned in the preceding paragraph there are the Native Courts constituted under the Native Courts Ordinance (Cap. 4), repealed and superseded by the Native Courts Ordinance, 1955 (No. 2 of 1955). These Courts are the District Native Court, the Native Officer's or Chief's Court and the Headman's Court. Rights of appeal are given from the decision of each Court. As a general rule the Native Courts are competent to try only cases in which all the parties are natives, including cases arising from the breach of native law and custom, civil cases where the value of the subject matter does not exceed fifty dollars, and claims to untitled land.

A comparison of the figures of cases tried in the lower Courts in 1956 and 1955 shows that there is little change. The incidence of crime, particularly serious crime, fortunately remains low.

There has been no important change in the organization of the Supreme Court during the year.

Probate and Administration

The Registrar assumed official administration of one deceased person's estate in pursuance of the powers conferred upon him

by section 3 of the Administration of Estates Ordinance (Cap. 80). The assets and property of the estate, after payment of the deceased's just debts and liabilities, will be distributed to the heirs and beneficiaries according to the shares to which they are entitled by law and custom. Three grants of probate and sixty-one grants of Letters of Administration were issued during the year.

Outside Kuching, deceased persons' estate were dealt with by other probate officers under section 2 of the Administration of Estate Ordinance (Cap. 80).

Lunatic persons' estates

In his capacity as Official Assignee, the Registrar administered seven lunatic persons' estates. Four of them are Chinese, one Malay and two Dayak.

Bankruptcy

There was a marked decrease in the tendency of creditors to resort to bankruptcy proceedings as an effective machinery in obtaining payment from their debtors. Litigants began to rely more and more on the High Court (Execution Proceedings) Rules, 1954.

Deeds and Bills of Sale

Eight hundred and sixty-one documents were registered under the provisions of the Registration of Deeds Ordinance (Cap. 89), an increase of one hundred and twenty over 1955. The majority of these were hire purchase agreements, powers of attorney, and other agreements.

Seventy-seven bills of sale were registered under the provisions of the Bills of Sale Ordinance (No. 7 of 1949), an increase of thirty-five over 1955.

Business Names and Limited Companies

Thirty new partnership businesses were registered during the year as compared with thirty-two in 1955. The majority of these are dealers in general merchandise and groceries.

Twenty locally incorporated and seven foreign limited liability companies were registered under the Companies Ordinance (Cap. 86) as compared with twenty-nine and nine respectively in 1955. The majority of these are traders in general merchandise, and insurance companies.

Patents and Trade Marks

Six grants of "Exclusive Privileges" were issued during the year. All of these are United Kingdom patents.

Two hundred and fourteen trade marks were registered and there have been no renewals of registration effected during the year.

Trusts

In the absence of a Public Trustee the Registrar administers two trust estates entrusted to him by orders of the Courts.

Court Fees, Fines, Forfeitures and Deposits

The volume of transactions under this heading has increased considerably. The revenue collected during the year amounted to \$182,797.54 as compared with \$45,871.07 for 1955.

Money Lenders

At the close of the year there were eighteen money lenders on the Register.

Probation

During the year thirty-five cases were formally referred to the Probation Section by the Courts. This represents an increase of 20.7% over the figure for 1955 which was 29.

Probation Cases

Thirteen cases were brought forward from 1955. All these completed their periods satisfactorily, save one who had to be sent to the Boys' Home because of the commission of another offence.

Eighteen boys were placed on probation.

The discharged boys as well as the current cases were either working or at school at the end of the year.

Parole Cases

Fifteen boys were released from the Boys' Home on parole. Of these seven are Kuching boys (two of whom now stay in the Boys' Hostel at Padungan), two are from Jesselton, North Borneo and the rest from outstations in Sarawak. They are working and doing well.

Miscellaneous Cases

Fifty cases involving boys beyond parental control, school truants, mischievous urchins attempting to wreck public property and young prisoners needing employment, etc. were referred to the Probation Office during the year by welfare agencies, parents and police, and dealt with.

Welfare Relief

3,235 food parcels (\$17,000.00) were given through the Probation Office during the year and cash relief ranging from \$5 to \$10 p.m. was also given to applicants in special cases. All relief cases, including those of ATAS and Red Cross are now handled by the Probation Officer, Kuching.

Staff

The Assistant Probation Officer left Kuching for Singapore on 30th June, 1956, for a six months' course in probation and hostel management in the Department of Social Welfare, Singapore.

CONSTABULARY

A peaceful year permitted steady progress in the reorganisation of the Force. Unwillingness of the Chinese to join the police and a high resignation rate in the rank and file hampered development.

Strength and Distribution

On the 31st December the strength of the Force was thirty-six gazetted officer, seventy-three inspectors and 1,307 other ranks. This was short of the authorised establishment by two gazetted officers, eight inspectors and twenty-eight rank and file. Four probationary inspectors were appointed and at the end of the year were training in Malaya.

Special Branch

The year was devoted to the consolidation and improvement in the efficiency of Divisional Special Branches, including their offshoots at smaller stations. Progress was made in the development of records in Divisions and men acquired a better knowledge of their duties. Special Branch continued to deal with investigation of crime and, in the larger stations, a division between police employed on criminal investigation and pure Special Branch work was introduced.

Field Force

Four Field Force platoons were stationed at Kuching, Sibu, Miri and Brunei, and a fifth platoon was kept on reserve for retraining. Apart from direct recruitment of a few former members of the Sarawak Rangers, replacements for the Field Force have been taken from the Regular Police. Morale remains extremely high, and frequent operations and patrols were carried out to prevent staleness and boredom. Police knowledge of the country has improved considerably as a result of these widespread patrols, which have also brought the police into contact with people living in more remote areas.

During the year the Auxiliary Police (Field Force Reserve) was constituted. The Reserve is made up of former members of the Sarawak Rangers and the Field Force, who signed on for three years with the Reserve after completing a three year contract with the Rangers or the Field Force. A total of 174 Reservists attended one of the two camps held in Kuching and lasting three weeks. The Reservists displayed a high standard of efficiency and keenness which bodes well for this useful auxiliary branch of the Force.

Marine Branch

The two police launches rendered valuable service. *La Fee* made regular monthly trips to all Divisions with stores, arms and personnel on transfer between stations. The aluminium speed-boat which was built in Hong Kong and put into commission in 1955 was moved from Sibu to Kuching where it is giving satisfactory service. Three heavy duty sampans were fitted with Coventry Victor Vixen inboard diesel engines. Preliminary tests indicate that they will be eminently suitable for routine police river patrols.

Radio Branch

The HF Transmitters and Receivers at Kuching, Simanggang, Sibu and Miri worked very satisfactorily, although at certain times of the day frequencies allocated to these networks have been unsatisfactory and there was much interference from foreign stations. The VHF mobile nets in Kuching and Miri have been completed except for the installation of the main station equipment in Kuching. A number of mobile pack-sets have been allocated to Divisions and to Field Force platoons. They have stood up to tests very well and are a valuable additional communication link.

Transport

The transport situation remains satisfactory. One long-wheel-base landrover was received during the year and posted to Miri. A new prototype personnel carrier built on a Bedford Chassis is due for delivery early in the new year. One ex-War Department 15 cwt. truck and one landrover were written off during the year. A number of new drivers were trained and although the standard leaves something to be desired it compares favourably with general standards in Sarawak.

Band

The band gave regular performances throughout the country and in Brunei and it is in constant demand for public functions. The Sunday concerts in the Museum Grounds in Kuching were particularly popular.

Auxiliary Police

Small units of the Auxiliary Constabulary were maintained at Kuching, Sibu and Miri. These units carried out a regular programme of instruction throughout the year. The Oilfields Security Force in Miri and Lutong, formed as a unit of the Auxiliary Constabulary for service in the oil installations, made good progress in its training programme and is proving itself a valuable support to the Regular Force as its counterpart in the Brunei oil installations. The Field Force Reserve was constituted during the year and two training camps were held.

Training and Education

A Senior Inspector completed a course of training at the Metropolitan Police Training School, Hendon, and was awarded the Baton of Honour. This inspector was promoted to the rank of Assistant Superintendent on his return to duty in Sarawak. One Chief Inspector was attending a course of training at the Police College at Ryton at the close of the year. One gazetted officer attended a course in criminal investigation in the United Kingdom.

Considerable progress has been made in educating members of the Force who were illiterate on entry. Followup educational classes in the larger police stations have brought about a considerable decrease in the number of illiterates in the Force. Most Divisional Headquarter stations are running English classes for their men in their spare time and a surprisingly large number

of rank and file have already qualified for English language allowances. There is a very healthy desire amongst the lower ranks to improve their knowledge and education. Five probationary inspectors completed an initial course of training at the Police Training School in Kuala Lumpur, and another four were still training there at the close of the year. In addition, three inspectors attended Special Branch courses in Malaya.

Welfare

The Divisional Welfare Committees performed a very useful function and the newly formed Wives' Welfare Committees also proved useful. Further progress was made in the equipping of station recreation rooms.

Casualties

Casualties totalled 225 compared with 309 last year; thirty men were dismissed for disciplinary offences, 140 resigned, four were discharged on medical grounds, nine were discharged as unlikely to become efficient and forty-two retired on pension. There were no deaths or desertions. The casualty rate is still high, but it is anticipated that the new rates of pay will reduce the number of resignations.

Buildings

No major buildings were put up during the year. A number of blocks of wooden barracks and Junior Service quarters for inspectors were completed at various stations. At Constabulary Headquarters a new magazine and armoury workshop was completed and taken over.

Health

The health of the Force remains good. Minor cases treated at dispensaries were 3,379. Eighty-eight men were admitted to hospital resulting in a loss of 651 man days; a considerable reduction on 1955. A number of cases of tuberculosis were identified at the Police Training School in Kuching and a complete survey of all personnel and their wives and families was carried out. It is intended to follow this survey up with mass miniature radiography of all police and their families living in Kuching area in 1957.

Uniform and Equipment

Stocks of uniform and equipment were adequate, although supplies were often delayed by shipping difficulties.

Traffic

The traffic situation in Kuching did not improve. As a result of the inadequacy of the roads, road accidents rose from 352 in 1955 to 482. The number of licensed motor vehicles in Kuching increased by 13% and the number of licensed bicycles increased to 33,321 for the First Division alone. There were seven fatal accidents which is the same as in 1955. Thirty-three people were seriously injured and 163 were slightly injured.

Crime

Generally, the crime figures for 1956 show a marked similarity to those of the two previous years. Twenty-four cases of murder and manslaughter were reported in 1956 as compared with twenty-six in 1955. Serious assaults rose by thirty-seven to a total of ninety-five. Minor assaults decreased by 36%. Fifteen reports were received of deaths which were caused by negligent use of firearms. Thefts increased by approximately 10% to a total of 968, and more serious thefts involving burglary and/or housebreaking by six to eighty-three cases.

Details of criminal cases reported to and dealt with by the police in 1956 are included in Appendix B to this Report.

Aliens Registration

New methods in the registration of aliens were introduced at the beginning of the year following the coming into operation of the Aliens' Ordinance 1955. New records were introduced and these cover the registration or re-registration of aliens as follows:—

<i>Nationality</i>	<i>Newly Registered</i>	<i>Re-registered</i>
American	7	7
Austrian	—	1
Chinese	822	99
Dutch	3	3
Indonesian	253	13
Italian	—	1
Japanese	—	1
Polish	1	—
	<hr/> 1146	<hr/> 125
		Total: — 1271

Pending Farm,
the open prison in
the First Division:
one of the main
buildings and ve-
getable gardens
(v.p. 103)



His Excellency
the Governor, Sir
Anthony Abell,
K.C.M.G., taking
the salute at a
passing out Parade
of the Sarawak
Field Force, at
Bukit Seol, 6th
December 1956



The considerable reduction in the number of registered aliens over previous years was the result of exempting from registration aliens who had completed five years' continuous residence in any part of the Commonwealth.

PRISONS

Prison Population

Three hundred and sixteen prisoners were committed in 1956 compared with 308 in 1955. Five were females.

Recidivism

Recidivism in 1956 was seventeen comparing with twenty-five in 1955. There were eight known recidivists among the 114 prisoners still serving sentences at the end of 1956.

Prison for Women

The prison for women prisoners was moved to Kuching on 19th September, 1956. The daily average of women prisoners was 2.75.

Classification of Prisoners

The establishment of Pending Farm has made it easier to segregate first offenders from habitual criminals. A monthly average of sixteen selected first offenders were housed at the Farm.

Spiritual Welfare and Education

Prisoners who are members of the Anglican and Roman Catholic Churches were regularly visited by their respective ministers, and services held on Sundays in the Prison Chapel. Muslim prisoners attend the Mosque every Friday under the supervision of warders.

A number of prisoners keen to learn to read and write Romanised Malay were given facilities to attend evening classes.

Library and Organised Games

The Library, where reading materials in English, Chinese, Malay and Iban were provided, was very much used. Books and periodicals were regularly provided by the Red Cross Society. Games of Badminton, table tennis, chess and draughts were very

popular. Radio reception is available between 6 p.m. and 9 p.m. daily and Radio Sarawak is the favourite station. The Information Service gave fortnightly cinema shows in Kuching Prison.

Inmates from Kuching Prison played football on Friday evenings at the Sarawak Boys' Home Football ground at Pending. Their behaviour during the games were excellent.

Health and Diet

The small five-bed hospital at Kuching Prison served its purpose very well. All minor cases were treated there. The health of the prisoners was good and there was no serious illness.

Labour

The following were trade parties:—

Basket making and reseating of chairs, blatt making, tin-smithing, blacksmithing, carpentering (furniture and house-building), laundry, tailoring, vegetable planting.

In addition to the above, parties of prisoners felled trees near Kuching Airfield. Other parties sometimes worked in the Astana Garden and other Government compounds.

Visits

The Board of Visitors paid monthly visits to the prison and reported favourably on the treatment of prisoners.

Mr. F. James, the Chairman of the Prisoners' Aid Society, visited the Kuching Prison every month and interviewed prisoners before their release. Money and clothing were given to most of them. This Society also gives help to prisoners' dependents when necessary.

Escapes

There were no escapes.

Executions

One execution was carried out early in the year.

Remission

Since the Prison Rules, 1956, came into force on 1st March, 1956, a convicted prisoner, male or female, sentenced to a term of imprisonment exceeding one month is granted a remission of one

fourth of sentence. Prior to this, prisoners serving terms of more than one month and up to twelve months were granted remissions of one-sixth of their sentence, and for those serving over one year, one-fourth of the sentence. Women prisoners serving terms up to one year received one-sixth, and over one year, one-third, remission.

Revenue

The value of articles made by Prison Industries was \$70,208.60 as compared with \$61,361.60 for 1955.

XII

PUBLIC UTILITIES AND PUBLIC WORKS

WATER

Kuching

DURING 1956 the water supply continued to come entirely from mountain streams in the Matang Range some ten miles west of the town, as unforeseen delays in the completion of the Batu Kitang supply scheme allowed no increase from this source. The new works were, however, virtually complete and under test at the end of the year.

In 1956 the maximum supply was limited by the capacity of the system to about 2,200,000 gallons per day, the average daily supply being about 1,900,000 gallons. This fell far short of the potential demand and only a very restricted supply could be maintained.

The new Batu Kitang Scheme will make available an additional 3,000,000 gallons of water per day, drawn from the Sarawak River at Batu Kitang, chemically treated and filtered and pumped to Kuching.

Work on the extensive long term programme of renewals and extensions to the distribution system was continued during the year and a number of major items were completed.

Severe drought was again experienced in the Matang catchment areas in June, July and August, resulting in a reduction of the available supply to a minimum of 700,000 gallons per day. The resulting severe restrictions of hours of supply once again caused considerable hardship to many people in Kuching.

Sibu

Sibu Urban and Port Areas are provided with filtered and chlorinated water from the Rejang River. The water is pumped from a point one mile above the port area. At present only one 76,000 gallon high-level steel tank is available for clear water storage but a similar tank of the same capacity is under con-

struction and a ground-level clear reservoir in reinforced concrete of 1,000,000 gallon capacity has been designed. When this is finished larger pumping units will be installed. New distribution mains to meet a demand of 1,000,000 gallons per day were laid and are in use but the hours of supply are restricted until the service reservoir and new pumps are operating. The supply is metered. There are 1,267 registered consumers, and water is also supplied by barge to ocean-going vessels at Tanjong Mani and to vessels in Sibul. The quantity supplied during the year was 7,444 tons.

Mukah

At Mukah a twenty-four hour water supply was maintained throughout the year. Complete clarification of the raw dark brown water has not yet been achieved in operation but with the help of WHO the problem has been solved in the laboratory. The necessary chemical metering pumps for additional treatment were ordered at the end of 1955.

The raw water is taken from the Petanak River and pumped through two miles of 7" asbestos pipe to settling tanks and pressure filters and to a 58,000 gallon high level service tank from which it is supplied by gravity to a normal pipe distribution system. There were 111 registered private consumers and 439 standpipe consumers in 1956.

Sarikei and Binatang

Water supply schemes are under construction at both places. The source of supply is tube wells, four at Sarikei and three at Binatang. Water is pumped to steel storage tanks by submersible pumping units and supplied by gravity, through a normal pipe distribution system to consumers. Drilling and development of all the wells is completed and laying of spun concrete lined distribution mains is nearly finished. Erection of headworks, buildings, and tanks and the installation of pumping units is proceeding. At Sarikei a temporary daily eight-hour supply has been possible since the end of June.

Miri

The town continues to be supplied from Sarawak Oilfields' water installation which has been extended to cater for the public demand. The Sarawak Government contributed to the capital cost of the new plant. New rising and distribution mains have been completed and will shortly be connected to the new supply.

The total number of new connections was 26.

Bintulu

This small gravity supply was maintained satisfactorily but shortages were experienced during peak periods because of increasing demand.

Limbang

A small gravity scheme was kept satisfactorily in operation but in the dry spell of February and March the stand-by booster pump had to be operated from the low-level reservoir for about twenty days.

Other Supplies

Gravity installations are in operation at Bau and Simunjan.

New Supplies

Work on new supply at Lawas has begun, including the laying of the pipeline and preliminary works in connection with the construction of the dam.

At Simanggang four boreholes have been established as a result of test boring. Drilling was carried out at eight sites. The four tube wells will yield approximately 100,000 gallons per day.

GAS

Miri

The natural gas supply from the oilfields at Seria continues to be in demand. There are now 565 consumers.

ELECTRICITY

The Sarawak Electricity Supply Company Limited, owned by Government, provides public electricity for the major centres and operates under the Electricity Ordinance 1952, and the Electricity Rules, 1955.

Supplies, varying with the locality, are either A.C. 400/230 volts 3 phase 50 cycle or D.C. 460/230 volts 3 wire, with diesel prime movers and hours of supply varying from thirteen to twenty-four hours per day according to the importance of the locality.

Sixteen stations are now in operation, with installed capacities ranging from 10 to 2,319 kw. In the major centres of Kuching,

Sibu and Miri, H.T. networks of 6,600 volts provide primary distribution.

Additional generating capacity was installed at Betong, Simanggang, Binatang, Kanowit and Mukah. Sarikei was converted to A.C. and a twenty-four hours supply is now available.

At Miri the first stages of conversion to A.C., the installation of extra generating capacity, and extensions to the H.T. distribution system to feed the Krokop area, were completed.

At Sibu, the power station underwent reconstruction to house extra generating plant, and new offices were partially erected.

In Kuching further generating capacity was installed and the distribution system extended to cover a wider area.

Contracts were placed for the new Kuching Power Station at Sungei Priok, with its associated distribution net work, to supersede the existing station, the capacity of which is limited by its area and position.

A new power station at the 7th Mile from Kuching on the Serian Road was commissioned towards the end of 1956. It feeds two bazaar areas, the Batu Kitang Waterworks, and other places.

Plans were formed during 1956 for conversion to A.C. at Binatang and Simanggang, and a licence granted to build a further power station and distribution system at Kapit.

The electricity position at 31st December 1956 is shown in Appendix C to this Report.

BROOKE DOCKYARD AND ENGINEERING WORKS

The Brooke Dockyard and Engineering Works is operated by a Board of Management appointed by Government with commercial representation and the Director of Public Works as Chairman.

Sixty-seven vessels were drydocked of a total tonnage of 9,579.10 tons. Twenty-eight launches were slipped.

A pontoon was converted into a ferry for Public Works Department and engines were installed in three long boats for Posts & Telegraphs Department.

Several improvements were made to the installation. Two extra welding sets were added to the equipment, one wood working machine, one sander and several small electrical tools. An electrical furnace was bought.

PUBLIC WORKS

Buildings and Civil Engineering Works

The 1955 Report indicated a trend of rising costs for building works. This has continued and appears likely to do so until an efficient building and engineering contracting industry is developed. With a few exceptions, contracts for constructional works have been carried out by small contractors with unskilled direction and dependent in the main upon subcontractors for the various trades and with few resources in plant, equipment or administrative capacity. The registration of contractors has been undertaken but the register is not yet complete. Executive officers of the Department try to undertake as much work as possible by departmental labour. It is hoped that directly employed and ultimately "directly trained" labour will increase the constructional potential and tend to stabilise costs. The uncertainty of landed costs on all imported stores has contributed largely to the high tenders received in the later months of 1956, and the inability of the smaller contractors to organise supplies for works in areas remote from the larger towns has left the local employers of labour in those areas virtually without competition. Efforts to tighten up contract procedure and to train contractors to accept the full responsibilities of their contracts have been made.

The architectural section has done good work, but the shortage of qualified staff has made it necessary to employ private architects, and this will continue until architectural capacity is built up to match both the works load and the construction potential.

Similar staff difficulties were experienced in civil engineering works and the employment of consulting engineers has of necessity continued in connection with a number of projects.

Quarters and Accommodation

The following works were completed :

	<i>Completed</i>	<i>In progress</i>
Quarters — Class I and II	7	21
Quarters — Class III and IV	157	113
Barrack Accommodation (Units)	160	23
Miri Low Cost Housing Scheme	Nil	92

These figures include both bungalows and flats some of which are “institutional accommodation” such as staff quarters at hospitals.

Miscellaneous Buildings

A great variety of building works are in hand including extensions to Sibu Hospital at an estimated cost of \$1,294,000; a temporary Chinese Teachers Training Centre at Sibu at an estimated cost of \$150,000; the new Mental Hospital near Kuching (see p.82); new Customs Offices and Godown at Limbang; extensions to Broadcasting House, Kuching; a Dispensary at Song and new PWD Offices, Depots and Stores for the Third Division at Sibu; improvements to the Leper Settlement near Kuching; improvements to the Kuching Hospital; and the construction of markets and miscellaneous police buildings.

Buildings completed include the rehabilitation of the old Secretariat Building in Kuching as offices for the Judiciary and the Resident, First Division. This comprises a chamber to serve both as the Supreme Court and as the Council Chamber for Council Negri. Other buildings of interest were the new Depot and Workshops for the Divisional Engineer, First Division; the Veterinary Clinic and Laboratory at Kuching; Extensions to P.W.D. Headquarters offices and the Divisional Offices at Miri.

Wharves

The chief undertaking was the completion of the new reinforced concrete wharf at Sibu which provides two berths for the small ocean-going vessels sailing Borneo waters. Consulting engineers have prepared a scheme for the wharves proposed for the development of the new port area of Kuching, to be situated a few miles downstream from the present Kuching port. Work on this project is delayed until the other services are designed.

Preliminary investigations have been carried out for a new wharf at Sarikei for berthing ocean-going vessels and small wharves

for light river traffic have been completed at Pusa, Lundu and Miri (Customs wharf extension). Schemes have been prepared, or work is in hand, for a reinforced concrete wharf at Lingga, a commercial jetty at Sebuyau, a coastal shipping wharf at Miri, the Kuala Baram Wharf and a Customs wharf at Limbang. A number of anti-erosion works have been carried out on river frontages.

Town Development

Considerable work has been done in providing the filling for the development of bazaar areas, drainage works and the construction of bazaar roads.

Quarries

The plans for the Development of Sebuyau Quarry were given priority. New crushing plant, screens and conveyors were ordered and delivery of the materials began during the year. The design for a new stone jetty was prepared in 1957. A new 200-ton capacity powered stone barge was ordered. The average monthly output of crushed stone is about 2,000 cubic yards and this exceeds the carrying capacity of the stone barges. Sebuyau Quarry supplies the stone demand of the Public Works Department in the Third Division. A new quarry was opened at Stabar, near the existing quarry at the 7th Mile from Kuching on the Kuching-Serian road. The existing quarry face is worked out and the new quarry is close enough for the existing crushing plant to be used until a new installation can be provided.

Airfield Construction

Work by departmental labour on the construction of an airstrip at Simanggang is in progress. The strip will be 2,800 feet long and 210 feet wide, with a runway 2,400 feet by 90 feet. Shortage of P.W.D. facilities in Simanggang cause a loss of machine time as heavy equipment requiring major repairs must be moved to the Kuching Workshops. Sibu airfield is being extended by departmental labour in order to provide an airstrip of 1,500 yards with a runway of the same length and no over-runs. The present length is 1,200 yards with a 200 feet over-run at each end. Construction of the airfield at Mukah has been delayed by the lack of reliable information about wind directions and strength, on which to base a decision as to orientation.

XIII

COMMUNICATIONS

WATER

COASTAL and river craft are the chief means of transport throughout the country.

Coastal and Local Services

The Sarawak Steamship Company maintained its regular coastal services, and a number of Chinese launches of larger and improved type were commissioned, principally for the timber trade.

Overseas Services

The Sarawak Steamship Company also maintained a weekly service between Kuching and Singapore and a fortnightly service between Kuching and Hong Kong is run by the China-Siam Line. The port of Tanjong Mani on the Rejang river was kept busy with an average of ten ocean carriers a month. Sibü, Sarikei, and Binatang were regularly served by ships of the Sarawak Steamship Company and the Hua Siang Shipping Company. A link thence with Hong Kong was maintained by the China-Siam ships when inducement offered.

Government Craft

Applications for government launches continue to increase with the development of the country, and the expansion of services. A number of old launches were scrapped during the year, and the fleet was augmented with the arrival of a new general purpose launch *Menaul*, and a 200-ton water boat, both built in Hong Kong. A thirty feet Hydrographic Survey launch, delivered in July, has already accomplished a considerable amount of useful work. *Menaul* in the last six months of the year steamed 8,672 miles, and carried 745 passengers, in addition to stores, luggage etc. 16,807 tons of stone were delivered to Sibü by *Binnie* and *Taffy*, towing lighters when weather permitted.

Casualties

M.V. *Lee Lee*, of sixty-three gross tons, disappeared on a voyage from Miri to Muara on the 28th June and was presumed lost with all hands. She had a crew of six. M.V. *Betong*, of 1,383 gross tons, belonging to the Straits Steamship Company, grounded in the Kuching river opposite the Astana on the evening of May 11th. Immediate help was given by the Marine Department, and the vessel was refloated on the next high tide.

Navigational Aids

The aircraft mooring buoy at Pending was replaced with a rubber one of new design. A buoy was laid at the entrance to the Rejang river, marking the shallowest part of the channel. The buoys at Limbang and Lawas were replaced with new ones designed by the Marine Department and manufactured by the Brooke Dockyard. A light was installed on the beacon marking Batu Mandi at the entrance to Lundu river.

Routine fuelling and maintenance kept the lighthouse tender *Kenyalang* busy through most of the year. She was used to do a survey of the Rejang Bar, and it was found that considerable changes had taken place in the channel.

Visits of Naval Vessels

H.M.S. *Alert* visited Kuching in February, November and H.M.M.N.S. *Penyu* and *Pelandok* visited Kuching and the Rejang river in July. The French Escort vessel *Dumont d'Urville* anchored at Pending for three days in July. H.M.S. *Opossum* visited Kuching in September. The MRNVR vessel *Panglima* came to Kuching in October.

DEEP SEA TONNAGE 1956

	<i>Inwards</i>	<i>Outwards</i>
Kuching	165,817	136,706
Rejang River	493,527	487,127
Miri	2,942,894	2,974,031*
Limbang	30,348	29,642
TOTAL	<u>3,632,586</u>	<u>3,627,506</u>

*includes oil tanker tonnage

COASTWISE TONNAGE 1956

	<i>Inwards</i>	<i>Outwards</i>
Kuching	113,337	124,717
Lundu	4,733	4,781
Simunjan	16,181	18,338
Sematan	1,732	1,687
Simanggang	11,153	11,459
Betong	4,828	4,926½
Sibu	72,397	60,701
Binatang	22,441	22,354
Sarikei	20,205	18,679
Balingain	7,030	7,027
Mukah	18,445	18,441
Matu	1,501	1,558
Oya	7,973	8,678
Miri	31,261	30,392
Bintulu	37,777	37,556
Baram	11,128	10,230
Niah	6,356	6,356
Sibuti	4,054	4,054
Limbang	2,522	2,606
Lawas	3,016	3,155
Sundar	1,022	1,085
	<hr/>	<hr/>
TOTAL	399,092	398,780½
	<hr/>	<hr/>

AIR

Sarawak must surely be an outstanding example of a country where development is being effected through the use of airstrips and travel in contrast with the more usual plan of making airstrips after country-wide and regional development has taken place. The summary of aircraft movements for 1956 as compared with those of previous years bears this out and shows increases in all-round figures of at least twenty per cent. The graph produced by these figures is rising constantly and will continue to do so for several years as more feeder strips are developed and more services operate into and out of the airstrips already in operation.

The tourist fares already introduced helped to increase air-travel to such an extent that an additional weekly flight through Kuching to Sibü was started to cope with the increase of passengers and freight; and this increase was not limited to the mainline services, for in June the feeder service movements into Lutong, Bintulu and Sibü was stepped up to three services per week in each direction.

With the increase of aircraft movements, the Department has provided improved safety services at the airports and well trained firecrews in possession of the latest types of helmets, boots, axes and equipment attend aircraft arrivals and departure.

Airports—Mainline Services

Kuching (International Alternate) — Sibü

Malayan Airways DC3 aircraft daily operate the international scheduled services into and out of these airports.

Feeder Airstrips

Miri, Bintulu, Sibü, Simanggang (under construction).

Malayan Airways operate D.H. Rapides on scheduled services through these strips terminating at Sibü in the South and Labuan in the North, to provide connecting services to the mainline aircraft.

Other internal strips controlled or used by agents not operating for hire or reward

(a) Miri, Anduki, licensed by Sarawak Oilfields Limited operating twin-engined Percival Prince and Short Sealand aircraft, and helicopters on oilfield work.

(b) Lawas, Long Semadah, Bah Kelalan, Bareo, Lio Matu, Long Tebangan, Long Atip. These are used by the Borneo Evangelical Mission whose pilots fly an Auster J5.

Airfield Surveys

Mukah, Marudi, Belaga, Saratok and Lundu have all been surveyed and are included in the Development Plan for airstrips.

Meteorological Services

The Meteorological Service is an integral part of the British Borneo Territories services, which provide information to Singapore for the purposes of area broadcasts. Pilot balloon

observations are made from Kuching and have been started in Bintulu.

SUMMARY OF AIRCRAFT MOVEMENTS DURING 1956

	KUCHING	SIBU	BINTULU	LUTONG
Aircraft Movements	2,000	1,802*	556	588†
Passengers Uplifted	6,449	4,871	592	972
Passengers Set down	6,514	5,229	489	915
Passengers in Transit	6,157	6,477	943	92
Mail Uplifted—lbs	42,443	33,222	1,515	4,142
Mail Set down—lbs	43,459	38,879	1,663	6,760
Freight Uplifted—lbs	91,778	54,897	599	5,463
Freight Set down—lbs	25,407	134,011	2,190	13,179

*Including Feeder Service.

†Excluding BMP Private Service.

ROADS

As readers of the 1955 Annual Report will be aware, there is no territorial road system, but a collection of roads radiating from the more important towns which are all situated on rivers, and dependent on them for most transport.

The projected Serian-Simanggang Road, of some 82 miles, which will link Kuching with Simanggang, the principal town of the Second Division, is to be undertaken by direct labour and preliminary operations were in hand at the end of 1956. This major project will form the first link in a through road which will ultimately form the backbone from which the future road system will develop.

Construction of a road to link Sarikei with Binatang, two ports on the Rejang River, has begun.

A considerable programme of road reconstruction works was carried out, the major programmes being in Kuching, Sibü, Sarikei, Mukah and Miri, and in the Fifth Division.

Road Mileages are:—

Concrete or Bituminous Roads	119.94
Gravel or Metalled Roads	72.44
Dry Weather Earth Roads	124.70
Dry Weather "Jeep" Tracks	68.82

LAND TRANSPORT

The volume of work handled by the Land Transport Department in 1956 surpassed all records. The steady increase in motor vehicles and the growing public demand for driving licences strained the department to its limit.

About seventy per cent of the licensed motor vehicles in Sarawak are in Kuching. 1956 saw 398 motor vehicles newly registered in Kuching as compared with 322 in 1955. The increases have created a high density of traffic in the Municipal Area and congestion along all the approaches. Finding parking places taxed the ingenuity of the authorities.

Applicants for provisional driving licences increased during 1956 and at the end of the year there was a long list of applicants waiting for driving tests. During 1956, 6,714 provisional driving licences and subsequent renewals were issued and 1,772 driving tests conducted as compared with 4,109 provisional licences and subsequent renewals in 1955 and 1,452 driving tests. On driving tests forty per cent of the applicants passed, forty-six per cent failed, and fourteen per cent were not ready or refrained from taking tests.

There has been a general improvement in the standard of public passenger transport services. In Kuching modern buses provide services under franchises over defined routes with regular time tables and fares. Only one operator has failed to satisfy the increasing demands of the travelling public and no major public complaint has been raised about the inadequacy of the service. Fifty-five buses with 958 passenger sets, working about 132 service miles, covered about 2,587,252 passenger miles at a gross fare collection of \$991,235.73. In Sibü and Miri preliminary work has begun and similar modern buses are being introduced with a view to the granting of appropriate franchises.

The Motor Transport Licensing Authority at Kuching and District Licensing Authorities at Sibü and Miri met often and their work consisted mainly of organising and expanding public transport services. Membership of the Motor Transport Licensing Authority in Kuching was enlarged to include representatives of Sibü and Miri districts, to make it more representative of the whole country.

New Municipal
low-cost housing
at Ban Hock
Road, Kuching



Government Junior Service flats at Batu Lintang, Kuching, first occupied in 1956



TELECOMMUNICATIONS

Kuching Automatic Telephone Exchange

In August the Exchange was filled to its capacity of 800 lines. An extension to 1,000 lines was completed and filled in December.

Sibu Automatic Telephone Exchange

The Exchange was filled to its capacity of 300 lines and an extension to 600 lines was ordered.

Miri Telephone Exchange

There has been no change since 1955. The Central Battery Exchange is filled to its capacity of 140 lines. An Automatic Telephone Exchange for 300 lines was ordered.

Outstation Telephone System

Twenty-three Exchanges are installed at outstations and the demand for telephones will probably not be satisfied for two years.

VHF Radio/Telephone Junctions

Forty-four VHF Junctions are in operation. In the Kuching and Simanggang Zones the system has been completed.

In Sibu and Miri Zones a few stations await completion.

The original planning of VHF Junctions dispensed with a preliminary radio survey and in a few instances it has been found necessary to use higher aerials and sometimes greater transmitter power to give satisfactory service. Communication between Limbang and Miri and Labuan and Miri is unsatisfactory. Through connection from Kuching to Simanggang continued through the year by the use of junction type equipments in tandem and a service between Kuching and Sibu was similarly provided. The service has not been of high quality but has been very useful.

The increasing use of the junction service is shown by the fact that the revenue, of \$3,000 in January, increased to over \$13,000 in December.

Telephone Statistics

(values in decimals of million \$)

Year	Number	TELEPHONES		TRUNKS		Total
		Cash	Service	Cash	Service	Service
		Revenue	Value	Revenue	Value	Value
		\$	\$	\$	\$	\$
1952	750	·022	·045	—	—	·045
1953	720	·024	·056	—	—	·056
1954	720	·027	·057	—	—	·057
1955	1,257	·072	·115	—	—	·115
1956	1,931	·110	·186	·041	·094	·280

Note: (a) Cash Revenue is collected from Private Subscribers for Telephone Rental and Trunk Call Charges.

(b) Service Value includes value of Telephone and Trunk Calls provided for Government Departments.

Trunk Telephone System (Multi Channel)

A radio survey, begun in 1955, was completed in 1956 and revealed the possibility of providing a multi-channel trunk telephone system between Kuching, Sibul and Miri by VHF Radio with only one repeater station, at Bintulu.

The radio path distance is a little over 100 miles in each of the three sections between Kuching, Sibul, Bintulu and Miri. The survey showed that a radio system using 200 watt transmitters and high gain aerials would be a practical proposition, but it did not provide data of sufficient accuracy for the final planning of aerial tower height etc.

Orders were placed for the minimum quantity of equipment for the operation of a pilot scheme which would provide accurate data while in service, using the 150 foot towers already in use for VHF junction purposes.

But for the closing of the Suez canal this equipment would have been in service by the end of 1956.

The quality of service is much as was expected, with fairly long periods of high noise level caused by signal fading. After the short period of observation indications show that the final scheme will require aerials about 100 feet higher than the pilot system.

Telegraphs

Telegraph services have been maintained throughout Sarawak and with Brunei, North Borneo and Singapore by wireless. The Singapore circuit has been operated by teleprinters with a great improvement in the speed of traffic. Many of the places served by VHF telephones have a telegraph service where none existed. To balance this much information formerly sent by telegraph is now passed by the VHF telephone system.

Telegraph Statistics (values in decimals of million \$)

Year	Foreign Words		Internal Words		Cash	Service
	Sent	Received	Govt.	Private	Revenue	Value
					\$	\$
1952	·82	·94	1·77	1·46	·23	·41
1953	·93	1·06	2·03	2·05	·25	·44
1954	·88	·89	1·81	1·99	·25	·42
1955	·96	·95	2·11	1·38	·28	·47
1956	·86	·95	2·42	1·42	·26	·46

Note: (a) Cash Revenue is in respect of private telegrams handed in for transmission at Telegraph Offices throughout Sarawak.

(b) Service Value is the revenue which would have been collected if telegrams on Government service had been paid for.

Aeradio Services

At Kuching and Sibu the Aeradio services were staffed and maintained under contract between the Postmaster-General and International Aeradio Limited. At Lutong and Bintulu the services have been operated by the Department. Equipment has been ordered for Simanggang

Police Radio

The existing HF network for communications between Police Headquarters and patrols was extended by the provision of additional pack-set equipments for patrols.

VHF mobile networks are in operation in Kuching, Sibu and Miri. Extension and improvement of the Kuching area was in progress at the end of the year.

Marine Radio

A VHF Marine Network has been developed, with stations in the lighthouses at Tanjong Po and Tanjong Jerijeh. These stations operate with stations at Kuching, Simanggang, Sibul, Bintulu and Miri, so that the many Government and private vessels now equipped with VHF radio sets can be in constant communication from within twenty-five miles from the Sarawak coastline with any land station.

Postal Services

The following tables show the other services of the Department :

PARCELS

Year	Value of C.O.D. Parcels Received		Number of Ordinary Parcels	
	from U.K.	from Malaya	Despatched	Received
	\$	\$		
1952	54,800	527,500	14,280	32,350
1953	45,900	575,400	11,490	23,600
1954	36,500	579,200	13,130	28,320
1955	33,900	451,000	14,380	36,140
1956	29,290	390,640	17,770	40,700

Note: There is no outgoing Cash on Delivery Service from Sarawak.

MAILS

(values in decimals of million \$)

Year	Stamps sold Value	Service Value
	\$	\$
1952	·242	·364
1953	·358	·538
1954	·369	·553
1955	·436	·654
1956	·463	·694

Note: Statistics show that in all despatches the ratio of unstamped government mail to stamped mail is approximately one to two.

Cash Revenue is the value of stamps sold. Service Value is cash revenue plus 50%.

Staff

There has been a large increase in staff to deal with expanding services. It has been impossible to fill all appointments in grades requiring considerable experience and technical knowledge, but men of the necessary qualities for ultimate promotion are emerging from the ranks of new recruits.

XIV

INFORMATION, PRESS AND BROADCASTING

INFORMATION

THE work reported last year continued through 1956 in growing strength. The number of shows given by the mobile cinema units increased from 633 to 965; five new coloured films of Sarawak were made by the staff photographer; and the number of photographic prints made for the local press, Government Departments, and overseas distribution increased from about 13,000 to over 29,000. A new reading room was opened at Lundu, making a total of twelve rooms now being supplied and staffed by the Information Service.

The Malayan Film Unit, which now has a very high reputation in the film-making world and has won many important international awards, sent a first-class team to Sarawak to make a coloured film designed primarily to illustrate the country's economic and political progress. Shooting was finished in December. There will be two versions, one with Malay and one with English commentary, each in both 35 mm. (theatrical) and 16 mm. (non-theatrical) editions.

The addition to the staff in April of an experienced journalist as press officer has made possible a very large increase in the collection and dissemination to the press and the public of information on the Government's policies and achievements. Much closer co-operation with Heads of Departments has also been made possible, and especially between the Broadcasting and Information Services because of an increase of staff on both sides.

A weekly publication in English, *Sarawak by the Week*, began in August. Of the first issue sixty copies were run off, but the demand began at once to increase and at the end of 1956 three hundred copies were being circulated weekly in Borneo and overseas. This success was quickly followed by requests from many quarters for publication in Malay and Chinese, but shortage of staff has not yet made this possible.

In addition to the regular distribution of films, newspapers, magazines and press releases for the United States and Australian Information Services a regular supply of films is now being received from the Canadian Trade Commission in Singapore. These are of high standard and have been widely shown.

The flood of enquiries from overseas Governments and agencies, often calling for much research and labour, increased considerably. In particular the Colombo Plan Information Unit has much increased its activities and requests. The number and curiosity of would-be tourists is also much greater.

Two field officers—members of the staff responsible for the maintenance of the mobile cinema units and the supervision of their tours and programmes—went on a course of instruction to Singapore and Malaya. The Directors of Information Services in Singapore and Kuala Lumpur were most generous in providing skilled and specialised training. The Service's two branch offices, in Sibul and Miri, concerned primarily with the working of the cinema units based on those centres, are becoming—thanks largely to the co-operation and goodwill of the Residents concerned—more and more useful as general information centres.

In April the Information Officers from the Governments of North Borneo, Brunei and Sarawak and the First Secretary (Information) from Her Majesty's Embassy in Djakarta met and conferred for three days in Kuching. This conference was part of normal inter-territorial co-operation. In June the Sarawak Government Information Officer attended a fortnight's conference in London of Information and Public Relations Officers from nearly all the Overseas Territories. A series of wide-ranging and valuable discussions was held, varied with addresses by many distinguished speakers, and by visits to the Imperial Institute, BBC (Sound and Television), Reuters, Cable and Wireless Limited, and other important organisations; but the most valuable part was undoubtedly the opportunity of meeting and establishing personal touch with colleagues from all over the Commonwealth. In November the Information Officer attended another conference, equally valuable in a more detailed and domestic way, summoned by the Commissioner-General for the United Kingdom in South East Asia and held in Singapore. This was attended by officers from all the British Embassies and Commonwealth territories in South and South Eastern Asia.

PRESS

Three newspapers began publication in 1956. They are *Sin Wen Pao* (Chinese—daily), *Hwa Chiew Evening Paper* (Chinese—bi-weekly) both published in Kuching, and *Sin Min Pao* (Chinese—daily) published in Sibu.

With the coming of important constitutional changes, and the growing pace of economic, political and social development, particularly in the very important sphere of local government, the press is growing too, both in number and in a sense of public responsibility. The duties of the Government Information Service in serving the press on behalf of the Government have, for the same reasons, also increased greatly, particularly in constant personal contact and in the much larger number of press conferences arranged by the Information Office. The response has been most encouraging and the newspapers are making good headway both editorially and technically.

A great many journalists and photographers from neighbouring Asian countries, and from Europe and America, visited Sarawak and were looked after.

BROADCASTING

Radio Sarawak was principally occupied with completing plans for the expansion of the service and securing approval for the necessary financial provision. By the end of the year building works were well under way. They include three additional studios with the extra engineering, programme and administrative accommodation, and this will provide for a large expansion of output. Plans are being made for the opening of the Schools Broadcasting Service.

In March, weekly midday programmes were started, and a bulletin of World News is now relayed daily from Radio Australia at 1300 hours Sarawak time. These programmes include two in Malay and one each in Hokkien and Foochow. Great progress was made in outside broadcasting, and the new mobile Outside Broadcasting Unit used the new F.M. VHF programme link between the Unit and Broadcasting House from many different parts of Kuching for the first time during the Municipal Elections in November. This Unit, which carries the most up-to-date equip-



The Borneo Company's new office building in Sibuan. The Borneo Company Limited, closely associated with Sarawak from the early days of the country's existence, celebrated its centenary in October 1956

Work in progress
at the Department
of Agriculture's
pepper research
laboratory at Batu
Lintang, First
Division



ment, proved its value and efficiency, and it now covers important external occasions as a matter of routine. Extensive visits to other parts of the country were made by Programme and Engineering staff, and much valuable programme material was collected.

Towards the end of the year the frequency for midday transmissions was changed from 5052 to 6060 Kilocycles, and this change gave very greatly improved reception. Much study was devoted during the year by the Engineering Division to the allied problems of propagation and transmitting aerials in preparation for the introduction of the second short wave transmission. The area of Radio Sarawak's transmitting station was also increased by the acquisition of five acres of land which will enable new aerial arrays to be erected.

Particular attention was given to the problem of technical staff training. This is of fundamental importance, for the majority of broadcasting technicians are Sarawak men who are excellent practical craftsmen, but who lack any real basic technical education. This deficiency of theoretical knowledge must be made good, and plans for the arrival of a qualified engineer to be in charge of technical training have been made.

The Director of Broadcasting visited many broadcasting organisations in Europe, the Middle East, and the United States, where he studied recent developments in policy and methods of sound broadcasting. The Assistant Chief Engineer spent six months studying technical developments in the BBC and investigated studio acoustics in London and Copenhagen. As a result of this visit Radio Sarawak has purchased reverberation test equipment which will be used in the construction of new studios and in the treatment and rehabilitation of the existing studios.

Council Negri approved the introduction of Licence Fees on radio receiving sets. The approved fee will be \$10 for a main receiver and \$3 for a battery receiver. This gives Radio Sarawak the opportunity for the first time of earning considerable revenue. The sale of radio receivers throughout the country continues at a high rate, although imports inevitably show a considerable decrease on the figures for 1955. The number of receivers in operation is now estimated to be five times greater than at the opening of the service in 1954.

The content and quality of locally-produced programmes continued to rise. Iban artists and contributors displayed a growing desire to broadcast, and in the absence of any commercial recordings in Iban, this programme is entirely of local production. The standard of Malay and Chinese artistic production has improved to a remarkable degree, and the would-be artists and contributors now greatly outnumber the available time on the air. Increased use was made during the year of material produced by Radio Australia, the Canadian Broadcasting Corporation and the BBC. Musical transcriptions of high quality from Radio Nederland and the Voice of America are also popular. Considerable material was relayed from the Far Eastern Service of the BBC in which messages from Sarawak students studying overseas and other contributed programmes have played an important and popular part. During the year programmes were contributed by the Right Honourable Malcolm MacDonald, P.C., Sir Harry Luke, Mr. Geoffrey Lloyd, M.P., Sir Alexander MacFarquhar, Mr. Vernon Bartlett, Mr. Raymond Mortimer, and Sir Sydney Caine and Professor Mason of the University of Malaya. Programmes contributed by interesting visitors to Sarawak are popular with listeners, and help to keep the public in remote areas in touch with current developments.

XV

LOCAL FORCES

THE Sarawak Rangers had another successful year. Their discipline, competence and bearing as soldiers have justified their popularity with the regiments to which they are attached and the honour in which a Ranger is held in his home river.

The normal strength of the Rangers was 325. This was reduced at the end of the year by death, casualties and discharges to just over 300. There was not a single case of desertion, absence without leave, or overstayed home leave during 1956.

There were three fatal casualties (one per cent of the force) and two Rangers were wounded. On 27th January Private Rejap anak Bagi was accidentally shot (and later died in hospital) by a soldier who slipped and fell during a patrol. On 14th June Private Tonggak anak Inkol was killed in the Kluang area of South Johore during a night operation against Communist terrorists. On 18th December Private Dempfi anak Berian was killed in action. Private Beroah anak Musa was wounded in action with the 2nd Royal Australian Regiment on 22nd June but was later able to return to duty. Private Tumpa anak Ura was wounded in action with the 1st Royal Lincolnshire Regiment on 3rd July and discharged, fit, from the British Military Hospital, Kuala Lumpur, on 17th August.

On 23rd October, Private Reji anak Tapau, a member of a small patrol of four men of the 1st Battalion The Royal Lincolnshire Regiment, which had been given the task of intercepting a party of terrorists at Sungai Seriting, near Bahau, accompanied his platoon Commander, Lieutenant Taylor, on a reconnaissance. Private Reji and Lieutenant Taylor came upon eight terrorists and in the ensuing action killed two and wounded two, who were captured. For his skill in the jungle, his courage and his loyalty to his platoon Commander Private Reji was given the

award of an Immediate Mention in Despatches. Private Saweng anak Nyipa was commended by the Coroner for his initiative and courage in killing in a fair fight a bandit food supplier. Five emblems for Mention in Despatches awarded in former years and 1230 General Service Medals (with clasp "Malaya") were handed to Rangers during the year.

In Sarawak a number of British Officers accompanying leave drafts were able to visit Rangers in their longhouses. The *esprit de corps* of the Force was strengthened by the arrangement of a refresher course at Bukit Siol Camp for 172 reservist Rangers, who had retained much of their former military skill and quickly reached a good standard of weapon training. Whatever the overseas future of the Sarawak Rangers may be, a body of men of the greatest value as a reserve in Sarawak and as an example to the upriver areas of the Second and Third Divisions is now in existence.

PART III

I

GEOGRAPHY AND CLIMATE

GEOGRAPHY

SARAWAK lies between latitude $0^{\circ} 50'$ and 5° North and longitude $109^{\circ} 36'$ and $115^{\circ} 40'$ East and has an area of about 47,500 square miles. It occupies a little less than one sixth of Borneo, the world's third largest island and the largest of the three thousand or more islands of the East Indies Archipelago.

An irregular but formidable mountain range runs through the centre of Borneo and forms the boundary between Sarawak and Indonesian Borneo. This and other boundaries with the neighbouring territories of Brunei and North Borneo are for the most part unsurveyed.

Mt. Murad, of about 8,000 ft., is Sarawak's highest mountain and, together with a number of other steep and irregular peaks, dominates the interior of the country which, particularly in the north-east and east, is for the most part mountainous and broken. A number of distinctive plateaux are known to exist and air photography and visual air reconnaissance carried out in recent years mainly by the Royal Air Force has contributed largely to the present knowledge of these areas. Ground explorations have also been made by geologists and others, and an Oxford University expedition in 1956 completed a successful six months' study of the Usun Apau plateau region.

The remainder of the country comprises an alluvial and swampy coastal plain with gently shelving sand or mud beaches, and a belt of undulating country, with a few mountain groups seldom rising to more than 2,500 feet, separating the plains from the mountainous interior.

The main rivers of Sarawak, of which the Rejang, 350 miles long, is the largest and most important, flow generally in a north-westerly direction, and have their sources in the central

mountain range. In the upper reaches they are fast-flowing through narrow steep-sided valleys and with numerous rapids before emerging at a more leisurely pace into the tidal reaches and deltas and eventually into the South China Sea.

The three-quarters of the country still covered by primary forest is uninhabited by man except for a few bands of nomadic Punans. Some 11,500 square miles are used for agriculture. The greater part of the primary forest is tropical rain forest but mangrove occurs extensively in the deltas of the Sarawak and Rejang river. Nipah palm fringes most of the rivers as far up as they are affected by brackish water. Areas of open grassland are few, near the coast, and used for cattle grazing.

There are few roads, rivers afford the main means of communication throughout the country. Navigation of the upper reaches of the rivers is restricted to hand-paddled boats, but the outboard motor is now used extensively where the depth of water permits. River and coastal launches provided regular commercial services between small towns and villages situated on the main rivers.

Principal Towns

Kuching, the capital and seat of Government and headquarters of the First Division, lies on the Sarawak river eighteen miles from the sea. It is an attractively laid-out town with a population of about 56,000. The trading community is mainly Chinese. There are large Malay villages and new residential areas in the suburbs. The Governor's residence is *Astana*, on the north bank of the river. The town, with its cinemas, shops and Chinese temples, Government offices, Anglican and Roman Catholic Cathedrals, mosque, schools, wharves and ware-houses, lies on the South bank. The first election, by secret ballot, was held in November 1955, and the town is now administered by an entirely elected Municipal Council.

Sibu, the second largest town of the country, has a population of about 20,000 and lies in the coastal plain eighty miles up the Rejang at its confluence with the Igan. It is the administrative headquarters of the Third Division and the town and suburbs have grown considerably during the last decade. Sibu, with Binatang and Sarikei lower down the river, has an important role in import and export trade of the country. The town is

low-lying and is subject to flooding when heavy rains in the headwaters of the Rejang coincide with spring tides. The trading community and inhabitants of the bazaar are mainly Chinese but there are Malay and smaller Melanau and Iban settlements within easy reach of the town.

Miri, on the coast fifteen miles from the mouth of the Baram River, owes its existence to the oilfield from which oil was first produced in 1910. Although oil is still being produced here, the neighbouring oilfields in Brunei have since become much more important. Miri remains the headquarters of the Fourth Division, and commercial centre of the region. The town has been rebuilt after suffering severe damage during the War of 1941-1945. It lies at the mouth of the Miri river, but a shallow bar makes it necessary for shipping, except small coastal vessels, to lie several miles off shore. At Lutong, six miles north-east of Miri, the oil company has a large refinery and storage tanks through which all the oil from British Borneo is exported.

Binatang and Sarikei are the main towns and river ports of the more densely populated areas of the Lower Rejang River. Simanggang and Limbang are the administrative headquarters of the Second and Fifth Divisions respectively and have small bazaars and wharves for coastal and river launch traffic. Of the other coastal towns Bintulu is the largest and the completion of the airstrip there provides a regular air service with Sibu and Lutong.

CLIMATE

In some countries in the world it is possible to forecast weather days and weeks ahead, but it is extremely difficult to do this accurately in Sarawak. The country is affected by the north-east monsoon, but the weather patterns are such that much of the weather is local. It may rain heavily in one place, and another relatively close-by may not be affected. In short, Sarawak weather is predictably unpredictable.

Meteorology and its study is a young science in this country and as it expands the knowledge obtained from observation stations will be studied and assimilated so that more accurate details of weather throughout the country may be made available to the public.

The following details of weather have been made from casual observation at Kuching Airport and these are substantiated by the recorded rising and falling of temperature, pressure and humidity.

During the monsoon season the weather has a pattern or cycle. When the wind is a strong sea breeze the normal indications are that the weather will be fair. A veering and backing wind means rain, as does the build-up of cumulo-nimbus clouds (rain usually comes within 8 to 12 hours). The advent of a cold front generally means a spell of wet weather for about a week during which the rain phases later on successive days.

Outside the monsoon, that is, from March to October, the weather is much drier and finer, although warm moist sea breezes bring convectional rain to areas on the seaward side mountain ranges.

A weather build-up which occurs over the sea and breaks while on the move inland is of much shorter duration than that of a build-up which occurs over a mountainous range or area, for in the latter case the wind changes direction and is inclined to be less strong.

Climatological data for Kuching, Bintulu and Miri, for the year 1956 are contained in Appendix D to this Report.

II

G E O L O G Y

SARAWAK is built mainly of young rocks. The oldest formations are only about 300 million years old, and so barely one sixth of the world's recorded geological history is represented here. The most ancient rocks are in west Borneo where 'Sunda land', a partly submerged extension of continental Asia, builds part of the island. In Sarawak are found most of the main rock formations which build Borneo, and so the geological history of this territory is a minature history of the whole island. Palaeozoic rocks occur, but Mesozoic and Tertiary deposits are commonest; the largest and most complete formation is the Tertiary, and here is found one of the fullest successions of these deposits in the world.

GEOLOGICAL SURVEY DEPARTMENT

The Geological Survey office in Kuching is part of the combined department established in 1949 for British Borneo, whence geological work is directed over the 86,000 square miles of the three territories. It is also the centre from which the geological mapping of Sarawak is made. Expeditions going into the jungle for trips ranging from a few weeks to several months. Advisory work for the Government and the public is also undertaken.

The Survey headquarters in Kuching contain a museum, library and laboratory and other premises, and during 1956 numerous visitors examined the displays there, which give a good idea of the country's geology and mineral resources. Attached to the museum is a geological reference library, and a collection of past geological and mineral exploration records, providing valuable information for those undertaking mining, building new roads, constructing dams, or searching for underground water. In the workshop, rocks and minerals were prepared for laboratory examination.

GEOLOGICAL MAPPING

During 1956 good progress continued to be made with geological mapping and research, and several regional geological investigations were completed. The first edition of the *Mineral Resources Map of the British Territories in Borneo* on a scale of 1:1,000,000 was published, and shows the distribution of the main Sarawak mineral resources; revision of the 1:1,000,000 regional geological map was also commenced. The drafting of more detailed maps on a scale of 1:500,000 was completed and the geographical base sheets were published during 1956; the geology is now being assembled on these maps. Detailed mapping on the 1:125,000 scale, completed in Sarawak since 1949, is now about 5,000 square miles. Coloured maps and two descriptive memoirs have been published and two more memoirs and their accompanying maps are being drafted, and a survey of a further 15,000 square miles has been started. Over 200 geological sketch-maps and figures have been issued.

Regional mapping was in progress in three areas. The first, the Batang Lupar Valley, is almost completed. The second area being investigated is the interior of east Sarawak forming the Rejang headwaters and the Baram-Rejang watershed; here, during 1956, good progress was made. The third area being mapped is the lower Rejang Valley.

ECONOMIC GEOLOGY

Aluminium ore, discovered by the Geological Survey some years ago, was further investigated by Sematan Bauxite Limited, a local company, and arrangements for mining began. Gold, in alluvial gravels and *in situ*, was discovered in the upper Rejang basin, but preliminary reconnaissance work suggests that the occurrences are too small to repay mining. A new find of mercury ore in the Lupar Valley also appears to be too small to be worth working. Black sand deposits in the Bintulu area containing ilmenite and zircon were examined and mapped, but did not show economic promise. Good possibilities for cement manufacture appeared in east Sarawak: at Batu Gading nearly 10,000,000 cubic yards of limestone have been found, and preliminary tests indicate that the composition is suitable for making cement. It can be transported by river to a site near the natural

gas pipe line from the oilfields, and it is in a stone-short area where some of the most rapid developments in the East are taking place. Oil production from the Miri field of Sarawak Oilfields Limited increased slightly. The main search for oil by this company was a marine investigation along the continental shelf where extensive geological and geophysical work continued. At Siwa, southwest of Miri, a marine platform was built some seven miles out at sea. Mineral products exported in 1956 were worth \$351,163,201 and exceeded seventy-five per cent of the value of products shipped from Sarawak.

Geological information was widely used to help develop the country's resources. A considerable amount of work was done on civil engineering projects, particularly in the search for stone, underground water supplies, bridge foundations, and dam sites, and in co-operation with the Public Works Department the search for stone was successfully continued. Along the stone-short coastal area of north Sarawak the quarry site indicated at Batu Gading was examined further and a potential supply of nearly 10,000,000 cubic yards of limestone found. Soils, in this predominantly agricultural region, are important and help was given with these surveys. Enough geological information has now been assembled to help to form a basis for a regional soil survey.

III

HISTORY

I

PREHISTORY

Stone Age

DURING 1956 work was done in sorting out the results of the earlier excavations at Niah Caves, in the Fourth Division. A preliminary analysis of results and outstanding problems,—based on partial but careful digging in one section of the great caves' mouth,—was partly undertaken to give information of a general character and partly to clarify problems for further and fuller research in the caves (which will be carried out in 1957).

Until now there has been practically no scientifically reliable evidence on the early history of man in Sarawak or in Borneo generally.

In Java and in South China during the past few years, the remains of very early forms of man have been discovered. Some of these so-called "paleolithic" men—living in the earliest stage of human development, with the very crudest stone implements and nothing else to distinguish man from the animal—date back something like one million years.

Geologists and archaeologists have often suggested that the great island of Borneo must also contain fossilised remains of the same character. There are various reasons for thinking this should be so. One reason is that Java and Borneo were one connected land mass in earlier times, and it is only quite recently—from the geologist's point of view—that Borneo has become a separate island. In the same way, one of the three large apes and nearest surviving ancestors to man in the world today, the orang-utan, is found only in Borneo and Sumatra, which was part of this same land mass in the past.

As early as the 1880s, following the great arguments of evolution and Darwinism, the Royal Society in London sent an

investigator to explore Borneo caves and river beds in search of evidence of early man. Those were the days when everybody looked for the "missing link". But, as far as Borneo is concerned, the result was a total blank.

Since then, there has been much speculation and various unsuccessful (though rather feeble) searches. Not only did these fail to prove the presence of very early man, the cousin of Java Man or Peking Man, but there was not even any evidence of Later Stone Age people, the developed descendants of very early man who, in historic times, entered the metal age of today.

In 1947, the Sarawak Museum began to make more organised and prolonged efforts to fill in some of the missing bits of knowledge. The first problem was to know where to begin. That is always much the most difficult thing in this sort of investigation in this sort of country. There are virtually no permanent open spaces in Borneo. Sooner or later, everything reverts to jungle, every building is overthrown and every grave disturbed by the forces of nature. The obvious place therefore to begin an investigation of this sort is in a cave. The mouths of caves provide the only bits of dry ground in Borneo which never get over-grown by vegetation; and only occasionally are they disturbed by the innumerable burrowing animals and insects of the jungle.

Unfortunately, however, human beings like caves just as much nowadays as their ancestors are supposed to have done in the past. The caves of Borneo provide two tremendous attractions. On the vast ceilings of the caves there are millions of bats and tiny swiftlets which, with their salivary glands, make cup-like nests; these suitably cleaned, dried, and boiled are the basis of Chinese birds' nest soup—one of the most expensive of foods. On the floor of the caves these same swifts plus bats deposit an endless supply of guano; in some caves this may reach a depth of more than 100 feet. This guano is the only locally available fertiliser in Borneo.

In consequence, most unfortunately for the archaeologist, the floors of practically every cave in the island have been not only disturbed, but a large extent removed, by man.

In the early cave explorations, which were undertaken by the Museum in conjunction with Raffles Museum of Singapore, more than thirty caves were examined and excavated in the

Bau district. Although a mass of interesting information about early occupants of the caves was obtained, it was invariably rather chaotic because of disturbance. The answers were exciting but unsatisfactory, stimulating but incomplete.

It was not until Sarawak Oilfields Limited had started drilling in the Niah river area that occasion arose to visit there and make a thorough preliminary examination of the great cave a mile back from the Niah river in the limestone hills of Gunong Subis. Even a cursory inspection of the ground showed immediate evidence of human remains, and here there was something unique. Because the cave mouth is so huge, both by height and width, it is also much lighter than any of the other caves, even including the very big ones in Mount Mulu on the Tutoh, further north in Sarawak. So much light in the cave mouth means that swifts and bats do not frequent that area,—and only live further in where it is 'good and dark'. There is therefore no reason for anyone to start messing about on the ceiling or digging anything up off the floor; there are no birds' nests and there is no guano in the mouth of Niah cave.

So, with high hope, feeling at least they had found the right cave, the Director of the Raffles Museum (Michael Tweedie), photographer Hugh Gibb and a Sarawak Museum party began a more thorough, but still reconnaissance, excavation in the Niah cave mouth in October 1954.

Only two sections of the cave mouth were explored—one in towards the darkness, the other right out in the mouth and in the full light (but still well protected from rain and wind).

This difference between the outer and inner mouth was reflected in what was found. On the inner side, the whole cave floor appears to be nothing less than a stone-age cemetery. The skeletons were in some cases quite perfect, small people—smaller than the people who live round Niah today. On or beside the bodies were placed stone implements, including some beautifully made and polished stone axes and adzes. The head of the skeleton was usually crushed in; with a large, crude home-made earthen-ware pot placed as a sort of second head piece. The body had been laid out on coarse leaf matting, then wrapped round (in some cases but not all) with very fine netting—the texture and mesh of a child's shrimping net.

Hammerhead
shark caught at
Talang-Talang Is-
land, July 1956.
1,000 pounds and
with a record
"hammer", 30
inches wide.
These sharks eat
turtles (v.p.161)



Excavating at
Tanjong Tegok,
Santubong, a
T'ang site, about
1,000 years old



This matting and netting, although extremely primitive, is nevertheless the first stuff of its kind ever found associated with stone age burials or occupations in this part of the world. It suggests that this group of stone age people at Niah were in some ways remarkably advanced as compared with those discovered under similar conditions elsewhere. But it is necessary to recognise here that the conditions at Niah are extraordinarily favourable to preservation over many centuries; and we are now talking about matting which must have been made probably many hundreds, perhaps many thousands, of years ago.

The cave mouth is so perfectly dry, and the limestone walls act as a kind of air conditioning in the cave—making it, incidentally, one of the most delightful places to work in and the only one in Borneo where we have ever been able to keep cool while digging. So it is possible that these finer things of primitive life have only been found, so far, at Niah because the conditions for preservation are so excellent there.

But in support of the belief that the people themselves were quite advanced, although still living in the stone age, there is the evidence of the already mentioned earthen-ware pottery. Some of this is of better make and finer finish than similar pots which are still being made today by the Dayaks in the Balleh, the Kelabits in the uplands and other Borneo people who live too far away from Chinese shops to be able to carry metal cooking-pots and water-containers. An astonishing feature of some of the Niah pottery—astonishing anyway to a student of these things—is the presence of three colours, applied as a sort of glaze. These colours appears to have been obtained by the use of different clays, charcoal and iron ore haemitite. But this suggests an advanced kind of craftsmanship, which in fact has subsequently vanished; and which has so far not been found anywhere else, amongst stone age people, in South East Asia.

The haemitite iron ore is another feature of the Niah stone age. Curiously enough, in widely separate parts of the world, (including Europe and America), primitive man discovered and used haemitite to cover the corpses of the dead. In Niah this vivid scarlet and magenta haemitite powder has been scattered in clouds over the cemetery.

Further out, in the full light of the outer cave mouth, there are no more burials but all the evidences of dwelling and everyday living. This second story is also enormously longer in time

than the first (the cemetery). For it seems, from what we know so far—to have been confined to the later part of the stone age.

It is difficult (until certain tests are completed), to know how late this is. From other studies it is believed that the stone age ended very early in Borneo as compared with some adjacent lands. But it is probably fair to put this Niah cemetery somewhere about the early part of the Christian era or earlier.

Be that as it may, this later stone age, with well polished stone implements, admirable coloured pottery, primitive but enduring weaving of a sort, and careful respect for the dead, represents only the very surface in the succession of the cave occupation from its beginning.

Out in the cave mouth, these advanced stone age signs are confined to the top few inches of a continued, man-made deposit, going down for many feet. Under this surface layer, immediately recognisable by the presence of pottery and polished tools, we almost at once come into a much simpler human set up. Pottery and polished tools now vanish altogether, and with them, of course, any suggestion or expectation of matting or anything else of that kind. At a couple of feet down, another age. A day of careful digging can go back 1,000 years, a week perhaps another 10,000.

In the last layers so far reached, things are really primitive. Down there, lie dense deposits of animal bone—wild ox, monkey and ape, snake, river turtle, deer of all kinds, birds, bats, fish and snails. None of these has been cooked in the modern sense. The meat has been taken off either raw or, usually, by simply throwing the carcase on to an open fire.

The instruments for making fire are found among the food remains, simple pieces of stone struck together. There are no human burials. For their only implement they have the very crudest stone tools imaginable. These are simply flakes of hard granite and similar substance which must have been brought from far away (because they do not occur geologically in the area); so were scarce and valuable. These stones have been struck with other stones and made into what archaeologists call “flake” tools. An inexperienced eye would not notice that they are tools at all; on close examination, it can be seen that they have been very crudely worked into sharp edges for cutting.

The next thing to do is both to look further and to go further down; far enough down, in space and time, to reach the period of fossilisation. If lucky, that is the next result which may possibly be hoped for—Borneo man of a million or so years ago.

Ceramic Age

The archaeological work on *later than stone-age* began in earnest by the Sarawak Museum in the delta during 1952. Each year it is bringing in more and more evidence, very slowly but fairly surely, on the early history and pre-history of the coastal plan in human terms. This story is very different from that of the inland.

During 1956 progress was made in continued exploration of the Sarawak River delta and the south-west coastline as far as Tanjong Datu on the Indonesian Border. Between Tanjong Datu and Sempadi thirteen prehistoric sites have now been located, proved and surveyed, but not yet excavated. Further east, around Santubong, five main sites have been partially (about one per cent) excavated so far. During the year a cemetery of about 1,000 A.D. or earlier was located and excavated on Tanjong Tegok, a small headland half a mile east of Santubong Rest House. Some very fine pieces of T'ang (618-906 A.D.) Chinese stoneware and porcelain were found. At the same time, a mile across the bay, on another headland, Tanjong Kubor (beside the village of Pasir Pandak), a larger and apparently more "proletarian" burial ground has been studied. Here quantities of earthenware of Indian type, as well as Chinese stoneware and porcelain of the early T'ang were found, along with ancient beads, gold objects and a coin of about 625 A.D.

The results of this work are being reported upon fully in the *Sarawak Museum Journal* (issued twice a year). So far, they do little more than indicate! What they do, however, already *clearly* indicate is a very extensive trade contact and occupation (perhaps inter-monsoonal only) by Chinese more than a thousand years ago and on to the Sung Dynasty (ended 1279 A.D.).

Two of these Santubong sites, Sungai Ja'ong at the foot of Santubong mountain and Sungai Buah in the present-day durian orchard across river, each stretch for half a mile or more long what are now narrow creeks in the swamp, only navigable in a

small boat at high tide; both once formed main branches of the Sarawak River, since silted-up—a process that continues to this day, so that the Santubong main branch up which the first Rajah Brooke and all 19th century vessels sailed is now navigable only to launches on the tide.

We cannot yet tell for certain what it was that these traders of a thousand years ago sought. But early Chinese annals put a high value on rhinoceros horn, hornbill ivory, edible bird's nests, gums and spices, as well as gold and precious stones all here available.

Gold has long been worked in the area extending from Kuching south westward to Sambas and Montrado in West Borneo. Though the production of this area is insignificant in comparison with the present world output, it must, if Borneo gold was known in the days of the great Indian trading expedition, have been of considerable importance in the ancient world. The fabulous Golden Chersonese may well have included Western Borneo.

It is likely that for a time Sarawak presently fell under the sway of the great maritime empire of Srivijaya, the Indian Buddhist thasassocracy centered on southern Sumatra, which reached its zenith towards the end of the twelfth century. Srivijaya fell about a century later before the attacks of Siam and the Hindu-Javanese kingdom of Majapahit, and Borneo came with the sphere of influence of the latter. The Majapahit empire in its turn began to crumble early in the fifteenth century before the Muslim States established by the advance of Islam into the archipelago. On these aspects, research continues.

After the fall of Majapahit, Sarawak formed part of the dominions of the Malay Sultan of Brunei, and it is first known to us by name through the visits to Brunei of Pigafetta in 1521, of Jorge de Menezes in 1526, of Gonsalvo Pereira in 1530, and from an early map of the East Indies by Mercator. Sarawak was then the name of a place on the river of the same name. Kuching did not exist.

II

HISTORY

This history of Sarawak as an integral State begins with the first landing in August, 1839, of James Brooke. At that time Sarawak was the southern province of the Brunei Sultanate.

The oppression of the Sultan's viceroy, Makota, had goaded into revolt the Malays and Land Dayaks resident in the area known as Sarawak Proper, and the Sultan had sent his uncle, the Rajah Muda Hassim, to pacify the country. The insurgents were led by Datu Patinggi Ali. James Brooke departed after a short stay and returned in 1840, to find the fighting still in progress. At the request of the Rajah Muda Hassim, he interceded in the dispute, brought about a settlement and was rewarded for his services by being installed on the 24th September, 1841, as Rajah of the territory from Cape Datu to the Samarahan River. This, however is but a small part of the total area which was later contained within the State of Sarawak.

For the remaining twenty-three years of his life Rajah Brooke devoted himself to the suppression of piracy and head hunting, often with the help of ships of the Royal Navy, which performed almost incredible feats of navigation and endurance. It is a story of high adventure, financial difficulty, and political persecution at home by the Radical party, followed by complete vindication and success. Sarawak was recognised as an independent State by the United States of America in 1850, and Great Britain granted recognition in effect by appointing a British Consul in 1864. In 1861 the territory of Sarawak was enlarged by the Sultan's cession of all the rivers and lands from the Sadong River to Kidurong Point.

Sir James Brooke, at his death in 1868, bequeathed to his nephew and successor, Charles Brooke, a country paternally governed, with a solid foundation of mutual trust and affection between ruler and ruled.

The first Rajah pioneered, subdued and pacified; Sir Charles Brooke, in a long region of fifty years, built with such conspicuous success upon the foundations laid by his uncle that piracy disappeared, head-hunting was greatly reduced and the prosperity of the country increased by leaps and bounds.

Further large accretions of territory occurred in 1882, when the frontier was advanced beyond the Baram River; in 1885 when the valley of the Trusan River was ceded; and in 1890, when the Limbang River region was annexed at the request of the inhabitants. In 1905 the Lawas River area was purchased from

the British North Borneo Company with the consent of the British Government. British protection was accorded to Sarawak in 1888.

Between 1870 and 1917 the revenue rose from \$122,842 to \$1,705,292 and the expenditure from \$126,161 to \$1,359,746. The public debt was wiped out and a considerable surplus was built up. In 1870 imports were valued at \$1,494,241 and exports at \$1,328,963. In 1917 imports totalled \$4,999,320 and exports \$6,283,071. Roads had been constructed, piped water supplies laid down and a dry dock opened in Kuching. There were telephones, and the wireless telegraph was opened to international traffic.

The third Rajah, Sir Charles Vyner Brooke, succeeded his father in 1917, and progress continued in all spheres. Head-hunting, as a result of tireless efforts, was reduced to sporadic proportions, revenue increased, enhanced expenditure resulted in improved medical and educational services, and in 1941, the centenary year of Brooke rule, the State was in a sound economic position with a large sum of money in reserve. As a centenary gesture, the Rajah enacted a new constitution, which abrogated his absolute powers and set the feet of his people on the first stage of the road to democratic self-government.

Then came the Japanese invasion and occupation. Social services and communications were neglected; education ceased; health precautions were ignored; sickness and malnutrition spread throughout the State. The people had been reduced to poverty and misery when, after the unconditional surrender of Japan, the Australian forces entered Kuching on the 11th September, 1945.

For seven months Sarawak was administered by a British Military Administration, as a result of whose efforts supplies of essential commodities were distributed, the constabulary reformed and the medical and educational services reorganised.

The Rajah resumed the administration of the State on the 15th April, 1946. It had, however, for some time been evident to him that greater resources and more technical and scientific experience than he then commanded were needed to restore to Sarawak even a semblance of her former prosperity. He there-

fore decided that the time had come to hand the country over to the care of the British Crown, and a Bill to this effect was introduced into the Council Negri in May, 1946, and passed by a small majority. By an Order-in-Council the State became a British Colony on the 1st July, 1946.

IV

SCIENCE AND ARTS

KNOWLEDGE of Sarawak's human and natural sciences advanced considerably during the year, especially in the fields of archaeology (already mentioned), anthropology, and ornithology.

Arts and crafts

Special efforts were made during the year—and will be continued—to encourage and preserve native arts and crafts; and to record folklore and customs before these disappear. It is something of a losing struggle, however.

Borneo has its own very vital arts and crafts. Inevitably these are threatened by the greatly accelerated and sometimes uncontrolled impact of Western civilisation. In particular, the influence of Government education and of Mission activities has very generally been to create with extreme rapidity a new set of values the significance of which is often imperfectly understood by the native peoples most affected. Ten years ago every young Kenyah, Kayan or Kelabit was proud of his leopard teeth ear-rings (if he was fortunate enough to possess them) and his tattoos. Today these fashions are in many areas being replaced by short hair, short trousers and skin clear of any design except vaccination.

The traditional systems of independent craftsmanship, of embroidered bark-jackets, fine beads, carved bone hairpins, ornate symbolic figures in wood, and decorated pipes, are threatened with early extinction. The old Ming jar and the Sung celadon plate, heirlooms of yesterday, are now shadowed by the refrigerator, the bicycle and the gramophone.

It is against this background that the thoughtful have to teach in the aesthetic field. There is nothing they can teach of carving, metal-working, design and weaving. The people do—or did—know it all uniquely. The young people no longer want it; better to buy cloth than make it, to use a \$2.00 parang knife instead of a finely wrought one from the Batang Kayan. On the other hand, efforts to teach western art, painting in perspective,

An early T'ang
ewer and other
pieces excavated
during 1956 at
Santubong. Early
Greco-Roman in-
fluence. 7th Cen-
tury or earlier



T'ang Yueh ware
pot, partly recon-
structed, from
Tanjong Tegok,
Santubong, c.900
A.D. Excavation
of 1956



and such like, are not at this stage producing results. This is a fairly familiar dilemma where West teaches East so fast, and one that has seldom been solved at all effectively.

Further good work was done in the more limited field of "western" art, by the Kuching Art Club. The members are Chinese, Malay and European and they work in mixed styles not related to the Dayak aesthetic.

The Sarawak Museum and Sarawak culture

The Sarawak Museum concentrated on collecting all it could, both material objects of aesthetic value and the verbal material of legend and local history. A Museum unit visited the great Baram centre of wood-carving on the Tinjar, purchased specimens and stimulated interest among the young. Another unit spent some six months in the field, recording songs and stories from elderly people. Special progress was made with Iban (Sea Dayak) and Meting-Bisaya ethnology.

The museum itself was established by the second Rajah, Sir Charles Brooke, in 1886, and is the only museum in Borneo. Standing in beautiful grounds in Kuching, it has the best collection of Borneo arts and crafts in the world, and is a great attraction both to tourists and to local institutions. Of the many visitors during 1956, about a quarter were Dayaks, a third Malays, a third Chinese and the rest European and other races. School children accompanied by their teachers came in increasing numbers. The two stuffed orang-utans, the snakes, the big whale skeleton and the human heads interest the young, while the photographs of Kuching in the past and the crafts collection especially attract the older visitors.

The Museum's position was much strengthened during 1956 by the completion of a commodious new building, built in keeping with the old one. These two buildings, with the British Council Library in between, form a harmonious architectural unit and the nucleus of a lively cultural centre in the attractive heart of Kuching.

The New Museum Building

The New Building is to be devoted entirely to study and reference collections, research, laboratory work, archives and facilities for advanced study by the growing body of persons

interested in human, animal, and plant problems in Sarawak. Most of the new equipment did not arrive until the end of the year and it will be a long job rearranging and indexing all the valuable material to be housed there—much having previously been stored in sheds, outstations, and “any old how”. But when completed, the New Building, in conjunction with improved display facilities in the Old Building (which is to be entirely reconditioned in 1957) will bring the Sarawak Museum up to date after a rather long period of tending to live on—physically at least—its distinguished Brookean past.

In making these new arrangements, the Curator has been greatly assisted by thirteen voluntary part-time Honorary Curators. This system, developed for the first time in 1956, has proved highly successful so far. Thus the Honorary Curator of Birds, a Forestry Officer, was granted special leave to work in the Museum for a month and was able to reorganise the collections completely as well as finalising the text of his “Checklist of Borneo Birds”, to be published shortly as a special issue of the *Sarawak Museum Journal*. The Honorary Curator of Stamps (until recently Chairman of the Kuching Municipal Council, and now Resident, Fourth Division) was able to revise, and catalogue, the collections and to fill most of the main gaps therein through an appeal in the *Sarawak Specialist*, to which philatelists from Europe and America responded most generously. And so on...

The Archives

Special attention has been paid to strengthening the country's archives, housed in the Museum. These include a wealth of original Brooke material. A beginning has also been made, in co-operation with Radio Sarawak, towards establishing Sound Archives—on permanent tape—for the future. A well-equipped dark room in the New Building improves facilities for the Photographic Archives which have also been augmented by the deposit of the original coloured film of the Brooke centenary and by generous gifts of documentary photographs from the Borneo Company and Mr. Hugh Gibb.

Anthropological Studies

The main anthropological work during 1956 has been the carrying forward of a full length survey of Malay Communities in the South-west of Sarawak. This is the last of a series of “socio-economic” studies carried out with the aid of Colonial Development and Welfare funds.

Already published are the studies of Land Dayaks (Dr. W. R. Geddes), Sea Dayaks (Dr. Derek Freeman), Melanaus (Dr. S. H. Morris) and Sarawak Chinese (Dr. T'ien). The Kelabits of the far interior are the subject of a long-term study separately. The Malay Survey completes the project. This has been undertaken by the Government Ethnologist, with valued assistance from University of Malaya students.

This Malay Survey will cover a longer period of time than the others and is being prepared in four main parts—dealing with Malay Coastal and Swamp Activities, Inland and Town Malays, Sea and River Fishing, and lastly a general account of Sarawak Malay culture, custom, and belief as a whole. A full length report on the first of these was completed during the year.

Expeditions and Experts

During the year there was an increasing flow of visiting scientists and students to Sarawak. These mostly worked through the Museum, whose collections benefited considerably; and in particular cases with the Geological Survey, Forestry Department, and Lands and Surveys. Among these was an Oxford University and a Cambridge Expedition, making general studies and zoological collections; a Chicago Natural History Museum party; botanists from the Singapore Botanical Gardens and the University of London; individual students from American Museums, New Zealand, India, Singapore and Malaya, Djakarta, and Hong Kong.

V.

FLORA AND FAUNA

THIS chapter aims to give some general idea of the natural life of the country, as well as indicating special points of interest in 1956.

Apart from the coastal plains of swamp forest, Sarawak is dominated by mountains and hills, each altitude, with varied forms of plant and animal life, meeting to form a tangled mass over the whole interior. Between dusk and dawn, the jungle is alive with the noise of thousands of insects. There are more than six hundred kinds of birds, more than a hundred species of mammals. Everywhere there is vigorous life going on all the year round. There is no rest for fauna or flora; plants grow all the time, animals do not hibernate; activity has no end.

Flora

High temperatures with little variation coupled with an annual rainfall between 100 and 180 inches, make for an ever-present greenness. The old leaves fall after the new ones have grown. This greenness is made up of an enormous number of different kinds of plants with violently different characteristics and habits of growth. Epiphytic life is apparent wherever there are trees. Almost every tree supports other forms of plants, mostly ferns and orchids using the tree as host, but not "living off" the tree like parasites.

There are several hundred species of orchids, mostly living on trees, and not being horticultural wonders or difficult to cultivate. Many have most beautiful flowers, and can be seen in gardens throughout the country. Some orchids such as *Phalaenopsis amabilis* have leaves six inches or so long and an inflorescence of more than three feet with white and yellow flowers, and live on trees. Others have roots in the ground with the tip of the plant growing indefinitely, and aerial roots clinging to forest trees to support their climb to the roof of the forest, where they flower. Such a plant is *Vanda Hookeriana*. Its natural habitat is the swamp forest, but it is seen in many gardens, growing up and above four-foot posts and flowering continuously.

In the dry season from April to September some jungle trees bear edible fruit. One looks like the English chestnut with a centre tasting not unlike an avocado pear; another is the luscious durian, weighing two or three pounds and much loved by many people.

Beneath the great forest trees there are thousands of other plants: beautifully coloured small foliage plants, terrestrial and epiphytic ferns of all shapes and sizes, mosses, gingers of all sorts, and many others. In the clearings and along river banks there are flowering shrubs, with pink and yellow their dominating colours.

It is often supposed that the jungle contains a great number of parasitic plants. This is not so. There are a few parasites, of which the most important are members of the mistletoe family. The unusual and huge *Rafflesia* is a parasite. It has no stem or leaves. Only the flower is visible, with strands of tissue growing inside the living substance of its host, usually woody climbers of the vine family. There are three known species of *Rafflesia* in Malaysia. The largest, *Rafflesia Arnoldii*, has five petal-like organs and in the centre a basin-shaped cavity large enough to bath a baby in.

Another unusual plant is the pitcher plant (*Nepenthes*). These are climbers, usually in open country. They turn the tables on insects, especially ants, by snaring, drowning, and digesting them. This is one of the few circumstances in which a plant eats an insect, and gets its own back. Many species of *Nepenthes* exist among the mountainous and lowland groups. Some have small pitchers of one inch and some large, of sixteen inches. The pitcher consists of body, rim and lid. Within the body a liquid is produced that digests the insects. The inner surface of the pitcher is slippery, and once an insect is attracted by the beautiful colours or the sugary secretions round the inside of the rim, it has little chance of escape.

A feature of Sarawak is the specialised flora of the moss forests with their dwarf vegetation. These occur in various parts of the country in mountain ranges above 3,000 feet. Layer upon layer of moss and dripping water abound, and the whole is in perpetual dampness.

During the year two scientific expeditions studied these upper montane zones. A number of species new to science were found but the full results have not yet been worked out.

Fauna

Perhaps the most dramatic place and easiest way to see into the teeming life of the island is to step out of the jungle and go into one of the great caves which honeycomb for miles wherever there is an outcrop of limestone; at Mt. Mulu on the Tutoh; around Long Akar on the Baram; inland from Bintulu at Gunong Subis at Niah; and in many small hills behind Bau, above Kuching. Niah, already referred to as the classic Borneo stone-age site (Chapter III), is the largest, loveliest, and fullest of life. Its principal inhabitants are roughly 1,000,000 bats and 1,000,000 swiftlets. And when the bats go out and the swiftlets come home at dusk it is difficult even to control your mind to millions. It is hard to imagine there are so many of any one animal in the whole world, let alone one cave. The bats are of several kinds, some the size of a crow, others of a sparrow. Into the night they go to forage the air of the jungle. The swiftlets (of the genus *collocalia*) are probably of three kinds, have tiny bodies and scimitar wings. Their nests they make of saliva excreted from special glands. These are the birds' nests of soup fame, prime delicacy of the Chinese gourmet. They are exported in quantity, the best quality (pure saliva) fetching as much as £10 a pound.

These swiftlets, who take their food as tiny beetles in and over the jungle canopy, work for man in two ways. One end salivates the nests; the other gives droppings of beetle elytra, providing guano, a very useful local fertiliser; and they are but two of several thousand vertebrate (spined) living species in Sarawak—and as yet uncounted tens of thousands of insects, shells and so on.

Some of the more interesting forms include:

(i) *Mammals*

The most famous of Borneo animals is the "orang-utan" or *maias*, one of the very few close cousins of *homo sapiens*. It is found only in Borneo and a small part of Sumatra. Despite constant persecution and inadequate protection, there are still *maias* in Sarawak, Indonesian Borneo and North Borneo. This charming, amiable, chestnut-furred animal, desired by zoos all over the world, can still be seen, shambling from tree to tree,

inland in the First and Second Divisions. Another of the five great apes also occurs in Borneo, the gibbon or *wak-wak*, probably the most graceful of all arboreal animals. A favourite pet, it is in captivity very susceptible to pneumonic diseases.

A little below the apes are the monkeys. The proboscis monkey is peculiar to the island and distinguished by an immense rubicund portwine nose. It is a little unfair that the native name for this otherwise elegant animal, sometimes standing almost as high as a man, is *orang blanda*—in English, a Dutchman.

Sarawak is rich in other mammals. The rhinoceros is dangerously near extinction, largely owing to persistent (now illegal) hunting by the Dayaks, who sell them to the Chinese. Wild cattle are quite common in the northern part of the country; wild elephants are confined to North Borneo. Deer are very numerous; the *sambhur* deer or *rusa*, almost as big as a cow, is in some places a nuisance to rice farmers.

There is only one dangerous animal, the honey bear or *bruang*. The leopard can be large and magnificent, but the people of the island regard it as effeminate. The honey bear, if upset or with a family of young, will attack the unwary traveller. There are many stories of people clawed and even killed by angry honey bears. The baby bear is a great favourite as a pet, but as it nears maturity, it becomes dangerous.

During the year two scientific expeditions studied these upper montane zones. A number of species new to science were found but the full results have not yet been worked out.

Aquatic Mammals

Little has previously been known of the aquatic mammals living in the Sarawak coastal water of the South China Sea. These include the cetaceans (whales, dolphins and porpoises) and the curious sea-cow or *dugong*. During 1956 especial efforts were made to study these groups.

The *dugong*, a shy and silent beast—superficially resembling but in no way related to a sea-lion—now appears to be confined to a small area on Tanjong Datu, where the population of Malay fishermen and Chinese hunters is very small. The whole local population numbers no more than a dozen, it seems.

The picture for cetaceans is brighter—much brighter than has hitherto been suspected. One year's careful observation has given good records of at least fourteen different forms present in these waters, most of them previously unsuspected. These include not only the well-known Common Dolphin, the ten-foot Bornean White Dolphin, the small lead-grey Iriwaddi which comes well up the river, and the Little Finless Black Porpoises of the estuaries, which were fairly well-known before. New records include the Plumbeous Dolphin, a big one with a remarkably long beak; the very large Risso's; the Bottled Nosed (which turns out to be very common); and a small black one, living in the muddy waters of estuary mouths, which has not yet been positively identified and may be new to science. Dr. F. C. Fraser of the British Museum has also described a largish dolphin collected near Lutong which is entirely new and is to be called the Sarawak Dolphin (see *Sarawak Museum Journal*, Dec. 1956).

But the great event of the aquatic mammal year has been the first record of a live *whale* in these parts. And not only one whale: two. The first stranded itself in mangrove swamps and was brought up-river ten miles to the Museum with great difficulty. It was a twenty-foot specimen of the very rare Brydes' Whale, of which only one other has ever been known in Asia, though it is fairly familiar to whalers in South Africa, its home. Then, during July, a large Humped-back Whale appeared off the Turtle Islands and spent some weeks there unmolested, becoming very tame. This whale was an object of wonder to Malay fishermen, who have never seen (nor dreamed) anything like it before.

(ii) *Birds*

Much attention was paid to bird study during 1956, as already noted in the previous chapter. Some records of particular interest were:

Great Tit: rediscovered in the mangrove at Pending; only previously known from two records in the Bau district during the last century.

Wheatear: one at Tanjong Sirik Lighthouse in October. The only previous record for anywhere south of the Yangtze is one in the far interior of the Kelabit uplands in November, 1949.

Lesser Crested Tern: first positive record off Talang-Talang Island; a new addition to the Borneo list.



Sarawak Museum

Malay fish-owl. A baby of this rare bird in the Sarawak Museum Zoo

Sooty Tern	}	Single records of these very rare species
Whiskered Tern		
Ruff		

Special attention is being paid to migrant birds, about which there is little information, whereas the resident forms have been quite extensively studied.

There is to be found in Borneo one of the richest resident bird faunae in the world. There are several sorts of hornbill, notorious for their domesticity: the male walls the female into the nest, feeds her there and only liberates her when the young are ready to fly. Among a number of fine pheasants, the Argus is as handsome as a peacock. Its dancing grounds are stamped out of the mud so that several males can compete to the delight, or at least to the concern, of the females.

Sarawak has parrots, broadbills, ten kinds of pigeon, egrets, nearly twenty kinds of woodpeckers, exquisite honeyeaters and flower-peckers, the lovely-voiced yellow crown bulbul, and so many other birds that it is doubtful if one many could ever learn to recognise them all on sight.

The finest of our seabirds is the great man-o'-war or frigate bird. This does not nest on the coasts, but comes about the offshore inlands in hordes during the monsoon, circling, spiralling and gliding for hours in effortless grace upon the wind.

(iii) *Turtles and other Reptiles*

Sarawak's reptilian speciality is the big Green or Edible Turtle. Although this occurs elsewhere, only here do so many come up to lay, on three small beaches on islands off the coast (The Turtle Islands). Live turtles are protected. Only the eggs are collected, and a proportion are left to hatch out. In 1955 advances continued in experimental methods of rearing the baby turtles until they grow tough enough to evade most of their fish enemies. The study of turtle migrations and laying by marking females with tags was also continued.

These tagging experiments, the first of their kind anywhere, this year produced their first positive results. Some 4,000 turtles were tagged with durable monometal numbered tags from 1953 to 1955. There were no long-term repeats until 1956. Then, on

July 6, one marked on July 30, 1953, at least reappeared. By the end of July, fourteen repeats had been recorded: *all* turtles tagged in July and early August 1953. One lady, number B1544, has now been checked in by the staff of turtle watchers on Talang-Talang Besar as laying over 1,000 eggs on eleven registered visits, five in 1953 and six in 1956. (The total egg-lay for 1956 was just under 1 million).

The results of this continuing study are of great importance to the turtle industry, as providing the first scientific information ever on laying habits and migrations. The experiments have aroused world-wide interest.

Sarawak has the most dangerous and deadly snake in the world, the hamadryad or king cobra. It can grow over fifteen feet in length, is quite common, and one of the very few reptiles in the world which will sometimes attack human beings.

Lizards, of which there are nearly a hundred kinds, are more conspicuous, because of the attraction human dwellings have for some varieties such as the *gecko* or *chichak*. An observant person may sometimes see flying lizards, which actually only glide on membranes extended between the front and back limbs. Sarawak is rich in flying forms, its flying snake being one of most spectacular. This peculiar snake, which looks quite ordinary, can (when it wishes) extend its ribs to produce two lateral sails and glide for quite a distance. One, let go from the upper storey of the Sarawak Museum, went nearly fifty yards. Among the amphibians, there are flying frogs with small bodies and big feet upon which are suckers. There are also very large toads, some weighing several pounds.

(iv) *Fish*

Sarawak has little especial in its fish life; fish are below average in abundance, particularly sea food fish, which are barely sufficient to satisfy the local market. The baracuda, bonito and horse mackerel are the only sporting fish. Big game fishing has not yet been proved feasible.

However, a new method of sharkfishing was developed on the Turtle Islands during the year, using baited cast iron hooks on number one wire attached to petrol-drum floats. Several very

large sharks were caught, one over 1,000 lbs. and a Hammer-head shark with a record head, over 30 inches wide from eye to eye.

(v) *Spineless Animals (Invertebrates)*

Numerous other illustrations of the country's wealth of animal and plant life can be produced: *molluscs* (shells), *crustaceans* (crabs, etc.), *arthropods* (spiders, etc.), and *nematodes* (worms). In the invertebrate section of spineless or boneless animals the variety of forms is immense. There are also many beautiful butterflies, the loveliest of which is the Rajah Brooke's Bird-wing (*Ornithoptera*) which decorates the country's one cent stamp.

VI

ADMINISTRATION

SARAWAK is divided for administrative purposes into five Divisions, each in charge of a Resident.

These Divisions are

- the First Division, with headquarters at Kuching;
- the Second Division, with headquarters at Simanggang;
- the Third Division, with headquarters at Sibu;
- the Fourth Division, with headquarters at Miri;
- the Fifth Division, with headquarters at Limbang.

Each Division is sub-divided into a number of Districts, administered by District Officers, and most of the Districts into smaller areas or sub-districts each in charge of a member of the Native Officers Service. The District Officers are advised by District Advisory Councils and sometimes Chinese Advisory Boards set up in each District, whilst Residents have the benefit of the advice of Divisional Advisory Councils which meet at frequent intervals at Divisional Headquarters. As far as is practicable, Government attempts to free Residents and District Officers from as much office work as is possible in order that they may tour their areas and maintain the close contact with the people which has always been the keynote of administration.

Progress in local government continued in 1956. Before the war the Native Administration Order was published as an enabling Ordinance to allow the gradual introduction of the people themselves into the administration of their own affairs. This Order contemplated the setting up of village committees to replace the individual chiefs, but the first experiment on these lines did not get very far owing to the outbreak of war and the impossibility of providing adequate supervision. In 1947 a scheme was drawn up for the development of Local Government through Local Authorities with their own treasuries. The Local Authority Ordinance, 1948, forms the basis for the powers of these Authorities, and their revenues are made up of direct taxes, fines, and fees, supplemented by a grant from the central Government calculated according to the number of tax-payers.

Most of the Authorities first constituted were established on a racial basis, but this proved to be an unsound foundation, and the pattern on which they are now organised is the Mixed, or Inter-racial, Authority, with jurisdiction over people of all races in the area. In 1956, two multi-racial authorities of this kind were set up—the Kuching Rural District Council and the Matu/Daro Rural District Council—and seven were changed from racial to mixed authorities. The Mukah Rural District Council was extended to cover Oya, Dalat and Balingian, and the whole of the people of the country, about 600,000, are now under the jurisdiction of local authorities, except for an area, on the North-east coast between Miri and the Brunei border containing about 15,000 people, the inclusion of whom in an authority's area has so far not been possible for geographic and administrative reasons.

In 1941, to commemorate the centenary of Brooke rule, His Highness the Rajah granted a Constitution, and in 1946, when Sarawak became a Crown Colony, the Supreme Council and the Council Negri retained the authority granted to them in that Constitution. This gave legislative and financial jurisdiction to the Council Negri, a body of 25 members of whom 14 were official members appointed from the Sarawak Civil Service and 11 unofficial, representative of the several peoples of the country and their interests. In addition, there were certain Standing Members—natives of Sarawak who had been members of the Council Negri immediately before the enactment of the new Constitution Ordinance. The Council had the power to make laws for the peace, order and good government of the country, and no public money could be expended or any charge made upon the revenues of the country without the Council's consent. The Constitution also provided for a Supreme Council of not less than five members, of whom a majority should be members of Sarawak Civil Service and of the Council Negri.

All powers conferred upon the Rajah or the Rajah in Council by any written law enacted before the date of operation of the Cession of Sarawak to His Majesty were vested in the Governor in Council. In the exercise of his powers and duties the Governor shall consult with the Supreme Council, except in making

appointments to the Supreme Council and in cases

(a) which are of such nature that, in his judgement, Her Majesty would sustain material prejudice by consulting the Supreme Council thereon; or

(b) in which the matters to be decided are, in his judgement, too unimportant to require their advice; or

(c) in which the matters to be decided are, in his judgement, too urgent to admit of their advice being given by the time within which it may be necessary for him to act.

These constitutional provisions remained in effect at the end of 1956, but in August a new Constitution was granted by Her Majesty the Queen and promulgated. Details of this very important step in the country's political progress have already been given, on pages 1 and 2 of this Report. The new Constitution will come into effect on a day to be appointed by His Excellency the Governor.

VII

WEIGHTS AND MEASURES

THE standard weights and measures recognised under the Laws of Sarawak are the Imperial yard, the Imperial pound and the Imperial gallon.

Certain local customary weights and measures having the values set out below are also lawful:

1 Tahil	=	1 $\frac{1}{3}$ ozs
1 Kati (16 tahils)	=	1 $\frac{1}{3}$ lbs
1 Picul (100 katis)	=	133 $\frac{1}{3}$ lbs
1 Koyan (40 piculs)	=	5333 $\frac{1}{3}$ lbs
1 Chhun	=	1.19/40 inches
10 Chhuns	=	1 Chhek = 14 $\frac{3}{4}$ inches
1 Panchang	=	108 stack cubic feet

VIII

NEWSPAPERS AND PERIODICALS

	FOUNDED
KUCHING	
<i>Sarawak Gazette</i> (monthly—English)	1870
<i>Sarawak Museum Journal</i> (twice yearly)	1911
<i>Sarawak Tribune</i> , Kuching (daily—English)	1945
<i>Chinese Daily News</i> , Kuching (daily—Chinese)	1945
<i>Utusan Sarawak</i> , Kuching (bi-weekly—Malay)	1949
<i>Pedoman Ra'ayat</i> (monthly—Malay)	1950
<i>Pembrita</i> (monthly—Iban)	1950
<i>Sarawak Vanguard</i> , Kuching (daily—Chinese)	1952
<i>Co-operation in Sarawak</i> (quarterly—English—Malay—Chinese—Iban)	1952
<i>Radio Times of Sarawak</i> (fortnightly—English—Malay—Iban—Chinese)	1955
<i>Public Information Bulletin</i> , Kuching (tri-weekly—Chinese)	1955
<i>Hwa Chiew Evening Paper</i> , Kuching (bi-weekly—Chinese)	1955
<i>Sin Wen Pau</i> , Kuching (daily—Chinese)	1956
SIBU	
<i>Ta Tung Daily News</i> , Sibu (daily—Chinese)	1948
<i>Sie Hwa Daily News</i> , Sibu (daily—Chinese)	1952
<i>Sin Min Pao</i> , Sibu (daily—Chinese)	1956
MIRI	
<i>Miri Weekly</i> (Chinese)	1954

RADIO SARAWAK

Radio Sarawak transmits daily from 5 p.m. to 10.45 p.m. (0900 hours to 1445 hours Greenwich Mean Time) on 5.052 megacycles in the 60 metre band and on 353 metres in the medium wave band for listeners in Kuching. Lunch time transmission is on 6.060 megacycles in the 49 metre band.

IX

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Forest Trees of Sarawak and Brunei by F. G. Browne. (Kuching: Government Printing Office, 1955)

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Geological Memoirs: (the two following memoirs, relating to Sarawak, form part of a large series of memoirs, reprints and maps produced by the Geological Survey Office):

The Geology and Mineral Resources of the Strap and Sadong Valleys, West Sarawak, including the Klingkang Range Coal, by N. S. Haile. (Kuching: Government Printing Office, 1954)

The Geology and Mineral Resources of the Kuching-Lundu Area, West Sarawak, including the Bau Mining District, by G. E. Wilford. (Kuching: Government Printing Office, 1955)

BOOKS

GENERAL

The Expedition to Borneo of H.M.S. Dido for the Suppression of Piracy (containing extracts from the journals of Sir James Brooke, the first Rajah)—Captain H. Keppel R.N. (1846)

Sarawak—Hugh Low (1848)

Rajah's Brooke's Journals (the first Rajah)—Captain Mundy, R.N. (1848)

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Ten Years in Sarawak—Sir Charles Brooke (the second Rajah) (1866)

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The Pagan Tribes of Borneo—Hose and McDougall (1912)

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NOTE: This bibliography is not complete. It is hoped to make it, in future Reports, more fully comprehensive.

APPENDICES

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A

<i>Scheme Number</i>	<i>Title of Scheme</i>	<i>Total Grant</i>	<i>Actual expenditure to 31.12.56</i>	<i>Estimated expenditure 1957</i>	<i>Balance of Scheme</i>	
		\$	\$	\$	\$	
	AGRICULTURE					
D. 816 & D. 816A	Agriculture Soil Survey	128,800	102,599	—	*	Completed
D. 826	Rubber Improvement (Extension)	83,228	64,617	—	*	Completed
D. 954	Cultivation of Cash Crops ...	128,000	100,960	—	*	Completed
D. 968	Visit of Malayan Irrigation Engineer	2,571	1,934	—	*	Completed
D. 973 & D. 973A	Mechanical Cultivation	136,140	82,709	—	*	Completed
D. 1208 & D. 1208A-B	Rice Cultivation—Paya Megok ...	493,192	482,878	—	*	Completed
D. 1424	Cocoa Seed Production Station ...	17,950	15,135	—	*	Completed
D. 1519	Department of Agriculture Staff Training School	100,000	99,755	—	*	Completed
D. 1664	Farm Mechanisation	163,500	153,444	—	*	Completed
D. 2080	Rice Cultivation—Niah/Sibuti ...	89,143	80,553	—	*	Completed
D. 2233	Rice Investigation (Pot Culture Experiments)	30,000	3,025	—	*	Scheme abandoned
D. 2311 & D. 2311A	Rice Investigation (Wet Padi Land Surveys)	270,000	270,000	—	—	
	BROADCASTING					
D. 2832	Extension Broadcasting Service ...	327,428	74,759	227,428	25,241	
	CIVIL AVIATION					
D. 913A-B	Kuching Airport (Supplementary)	291,916	291,432	—	*	Completed
D. 1542 & D. 1542A	Sibu Airfield	180,000	180,000	—	—	Completed
D. 1923	Sibu Airfield—Buildings	281,000	278,816	—	2,184	
	EDUCATION					
D. 838	Rural Improvement School, Kanowit	275,194	248,092	—	27,102	Completed
D. 839 & D. 839A	Batu Lintang Teacher—Training					

	Grants for Science Laboratories Batu Lintang Training Centre Per- manent Buildings	§ 360,000 1,250,000	114,113 —	110,887 5,000	135,000 1,245,000	A
D. 1875 & D. 2783 D.	FISHERIES					
D. 821	Training of Fishery Survey Officer + Fisheries Survey + ...	3,428 77,787	2,316 69,995	— —	* 1,112 * 7,792	Completed Completed
D. 1120	FORESTRY					
D. 2791	Forestry Development (1.1.50— 31.12.55) ...	349,843	339,561	—	10,282	
D.	Forestry Development (1.1.56— 31.12.59) ...	363,214 81,115	76,265 —	95,501 —	191,448 81,115	
	Timber Plantations ...					
	GOVERNMENT BUILDING					
D. 1430 & D. 1430A	Senior Service Quarters ...	226,011	217,383	—	* 8,628	Completed
	MEDICAL					
D. 830 D. 2442	Travelling Dispensaries ...	670,000	644,474	—	* 25,526	Completed
	Mental Hospital ...	1,500,000	808,880	525,000	166,120	
D. 1273	PORT DEVELOPMENT					
	Test Bores, Rejang and Kuching Rivers ...	79,971	75,559	—	* 4,412	Completed

Note:

*Saving on Scheme.

¶Amount represents net expenditure after deducting revenue of \$119,456 earned by the Scheme.

†Includes new provision of \$160,000 for the second phase of the Scheme.

§Includes new provision of \$135,000 for the second phase of the Scheme.

+Completed before commencement of Development Plan.

¶Amount represents net expenditure after deducting a revenue of \$7,554 earned by the Scheme.

§Scheme closed on 31.12.55 and continued under Scheme D. 2791

A

COLONIAL DEVELOPMENT AND WELFARE SCHEMES — SARAWAK ALLOCATION

<i>Scheme Number</i>	<i>Title of Scheme</i>	<i>Total Grant</i>	<i>Actual expenditure to 31.12.56</i>	<i>Estimated expenditure 1957</i>	<i>Balance of Scheme</i>
		\$	\$	\$	\$
	ROADS AND BRIDGES				
D. 944	Secondary Roads and Telecommunication	102,171	98,911	—	* 3,260
D. 1076 & D. 1076A-E	Road Development Scheme ...	2,216,916	2,097,756	662	118,498
	Total, Sarawak Allocation	11,419,891	7,679,986	985,020	2,754,885

Completed

COLONIAL DEVELOPMENT AND WELFARE SCHEMES — JOINT BORNEO ALLOCATION

D. 823	Coal Investigation	£ 92,143	92,143	—	—	Completed
D. 804 & D. 804A-D	Sarawak Population Census and Printing of Census Tables+ ...	224,211	223,902	—	*	Completed
D. 913	Kuching Airport	411,428	411,428	—	—	Completed
D. 1828	Central Mental Hospital	15,106	15,106	—	—	Scheme abandoned
	Total, Joint Borneo Allocation	742,888	742,579	—	309	

Note: *Saving on Scheme.

‡50% of total grant; scheme administered by North Borneo Government.

+Completed before commencement of Development Plan

COLONIAL DEVELOPMENT AND WELFARE SCHEMES — CENTRAL ALLOCATION

APPENDICES

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<i>Scheme Number</i>	<i>Title of Scheme</i>	<i>Total Grant</i>	<i>Actual expenditure to 31.12.56</i>	<i>Estimated expenditure 1957</i>	<i>Balance of Scheme</i>	
D. 1109 & D. 1109A D. 1109B	Combined Geological Survey ... Combined Geological Survey ...	\$ 844,352 325,500	\$ 844,352 313,331	— —	— * 12,169	Completed Scheme closed 31.12.55
D. 1191 (i) D. 2790 D. 1749 D. 1692	Combined Geological Survey ... Combined Geological Survey ... Broadcasting Service ... Meteorological Service ...	5,047 565,714 406,283 197,990	5,047 172,069 405,536 181,753	— 118,473 — —	— 275,172 747 16,237	Completed Completed Completed Completed
D. 1117 & D. 1117A-E D. 1924	Aeronautical Telecommunications Aeronautical Telecom. Equipment, Sibu Airfield ...	402,000 81,000	392,066 47,132	— —	* 9,934 * 33,868	Completed Completed
D. 2502	Aerodio Equipment for Lutong & Bintulu Airfields ...	16,500 77,786	13,000 69,995	3,500 —	— * 7,791	Completed Completed
R. 209 & R. 209A R. 270 & R. 270A-G	Fisheries Survey+ ... Sociological Research (Melanau, Iban, Land Dayak & Chinese Projects) ...	93,266	88,704	—	* 4,562	Completed
R. 483	Sociological Research (Malay Project) ...	6,000	5,917	—	* 83	
R. 618 & R. 618A	Pepper Disease Investigations ...	69,085	37,476	25,300	* 6,309	
	Total, Central Allocations	3,090,523	2,576,378	147,273	366,872	

Note: *Saving on Scheme.

+Completed before commencement of Development Plan.

¶Amount represents net expenditure after deducting a revenue of \$7,554 earned by the Scheme.

A

DEVELOPMENT PLAN SCHEMES—SARAWAK FUNDS

<i>Title of Scheme</i>	<i>Total Estimated cost of scheme</i>	<i>Actual expenditure to 31.12.56</i>	<i>Estimated expenditure 1957</i>	<i>Balance of Scheme</i>	
	\$	\$	\$	\$	
AGRICULTURE					
Agricultural Credit—Loan to Co-operative Cen- tral Bank	1,000,000	—	250,000	750,000	
Fertiliser Manufacture	15,000	4,970	—	10,030	
Development of Farm Mechanisation	477,000	271,563	40,000	165,437	
Animal Husbandry (Purchase of Livestock)	100,000	69,727	5,000	25,273	
Veterinary Clinic	125,000	75,717	13,000	36,283	
Pepper Disease Investigations	127,981	78,500	25,000	24,181	
Establishment of Soils Division	442,000	—	200,000	242,000	
Rice Cultivation—Paya Megok	107,725	103,193	—	4,532	Completed
Rice Cultivation—Niah/Sibuti	89,143	80,553	—	8,590	Completed
Rice Investigation (padi developments Bijat and Pujut Lopeng)	14,000	9,969	—	4,031	Completed
Rice Investigations (Wet Padi Land Surveys)	1,500	247	—	1,253	Completed
Rubber Planting	4,000,000	428,908	1,035,681	2,535,411	
Rubber Research	500,000	300,000	100,000	100,000	
Sago Industry	500,000	7,570	100	492,330	
Drainage and Irrigation Samarahan	136,750	11,456	81,294	44,000	
	(7,636,099)	(1,442,373)	1,750,375)	(4,443,351)	
BROADCASTING					
Establishment of Broadcasting Service	516,848	514,013	—	2,835	
Extension of Broadcasting Service	443,572	46,665	396,907	—	
	(960,420)	(560,678)	(396,907)	(2,835)	
CIVIL AVIATION					
Kuching Airport—turfing anti-erosion work and sub-soil drainage	103,500	77,638	24,857	1,005	
Simanggang Airfield	307,600	57,086	250,514	—	

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	127,406	127,406	—	—	Transferred to recurrent budget from 1.1.54.
Airport Equipment, fire-fighting (Kuching and Sibu)	127,406	127,406	—	—	
Airport Equipment, fire-fighting (Simanggang and Mukah)	36,328	—	36,328	7,507	
Internal Air Service (Lutong)	20,000	12,493	—	—	
Internal Air Service (Labuan Hangar)	28,000	28,000	—	16,080	
Internal Air Service (acquisition of sites)	70,000	14,920	39,000	(98,600)	
	(1,513,834)	(666,065)	(749,169)		
COMMUNITY DEVELOPMENT					
Henghua Fishermen's Housing Scheme, Kuching	172,711	152,190	13,000	7,521	
Muara Tuang Scheme, First Division	47,800	26,395	3,500	17,905	
Padawan Scheme, First Division	164,169	13,309	40,419	110,441	
Budu Scheme, Second Division	277,693	146,063	49,640	81,990	
Entaibai (Pilot) Scheme, Third Division	52,830	—	37,230	15,600	
Long Lama Scheme, Fourth Division	154,500	24,418	44,684	85,398	
Contribution to Sarawak Council for Adult Edu- cation	42,500	17,462	25,000	38	
Staff	153,000	33,791	32,412	86,797	
	(1,065,203)	(413,628)	(245,885)	(405,690)	
EDUCATION					
Rural Improvement School, Kanowit	369,165	194,713	—	174,452	
Buildings—Rural Improvement School, Kanowit	185,400	179,993	—	5,407	
Batu Lintang Teacher-Training Centre and School	935,000	150,430	—	784,570	
Local Scholarships	250,000	91,332	89,000	69,668	
Overseas Scholarships and In Service Training	2,300,000	742,918	510,000	1,047,082	
Production of Vernacular Literature	120,000	3,187	10,000	106,813	
Trade and Technical Education	750,000	446	—	749,554	
Batu Lintang Training Centre—Permanent Build- ings	1,250,000	—	5,000	1,245,000	
Commerical Courses	120,000	—	5,000	115,000	
Library Establishment	250,000	87,645	102,000	60,355	

A

DEVELOPMENT PLAN SCHEMES — SARAWAK FUNDS—(Contd.)

<i>Title of Scheme</i>	<i>Total Estimated cost of scheme</i>	<i>Actual expenditure to 31.12.56</i>	<i>Estimated expenditure 1957</i>	<i>Balance of Scheme</i>	
	\$	\$	\$	\$	
Government Secondary Schools	5,000,000	1,468	730,000	4,268,532	
Chinese Teacher Training	750,000	58,748	200,000	491,252	
Group Headmaster Scheme	177,000	—	90,000	87,000	
Capital Grants to Education Agencies	4,500,000	153,880	1,000,000	3,346,120	
Loans to Agencies and Local Authorities	2,500,000	—	250,000	2,250,000	
Regional Publication Bureau	113,770	—	50,000	63,770	
Lutong School	88,000	—	88,000	—	
	(19,658,335)	(1,664,760)	(3,129,000)	(14,864,575)	
FISHERIES					Completed
Fisheries Survey	12,857	12,857	—	—	
Marine Fisheries Research Station Singapore	51,720	11,826	15,000	24,894	
Fishery Development	314,950	212,617	57,107	45,226	
Fresh Water Fisheries	10,000	2,355	100	7,545	
Inboard Engines for Native Fishing Craft	25,000	2,900	15,000	7,100	Completed
	(414,527)	(242,555)	(87,207)	(84,765)	
FORESTRY					Completed
Grant towards establishment of National Park	50,000	49,998	—	2	
Forestry Development	121,086	25,422	31,833	63,831	
	(171,086)	(75,420)	(31,833)	(63,833)	
FUEL AND POWER					Completed
Electricity Supplies, Lundu (Loan)	42,300	42,300	—	—	
Electricity Supplies. Kuching	7,457,700	5,675,200	—	1,782,500	
	(7,500,000)	(5,717,500)	—	(1,782,500)	
GEOLOGICAL SURVEY					Completed
Combined Geological Survey	609,072	412,369	195,703	—	
GOVERNMENT BUILDINGS					

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					Completed Completed Completed	Transferred to recurrent budget from 1.1.54
New Government Office, Sundar	25,000	—	—	25,000	—	
New Courthouse, Limbang	20,000	—	—	20,000	—	
Rehabilitation of Lundu Station	348,000	345,412	—	—	2,588	
New Government Secretariat, Kuching	1,200,000	1,135,655	—	—	64,345	
Extension of Government Office, Simanggang	58,000	57,687	—	—	313	
New District Office, Lawas	48,000	47,679	—	—	321	
P.W.D. Garage, Kuching	280,000	276,698	—	—	3,302	
P.W.D. Depot (First and Second Divisions)						
Kuching	255,350	237,416	—	—	17,934	
P.W.D. Depots (Simanggang, Sarikei and Limbang)	250,000	—	—	178,500	71,500	
Miri Government Offices, extension	57,000	47,295	—	4,000	5,705	
Expansion & Improvement, Government Offices, Kuching	1,036,700 (3,832,050)	—	—	300,000 (573,500)	736,700 (1,108,671)	
HOUSING						
Miri Housing Scheme	890,000	237,912	—	490,000	162,088	
Kuching Housing Scheme	3,560,000	1,485,000	—	1,725,000	350,000	
Sibu Housing Scheme	2,500,000 (6,950,000)	—	—	—	2,500,000 (3,012,088)	
LAND						
Land Utilisation and Development	2,500,000	238,753	—	325,253	1,935,994	
Acquisition of Land for development purposes	1,500,000 (4,000,000)	628,130 (866,883)	—	500,000 (825,253)	371,870 (2,307,864)	
MEDICAL						
Health Centre	322,500	316,565	—	—	5,935	
Leper Settlement Buildings	600,000	433,978	—	94,100	71,922	
Travelling Dispensaries	146,458	146,458	—	—	—	
Travelling Doctors Scheme	394,783	—	—	190,000	204,783	
Extension of Anti-Tuberculosis						
Kuching	210,000	54,039	—	57,000	98,961	
Anti-Tuberculosis Campaign	75,000	61,310	—	13,000	690	
W.H.O. Anti-Malaria Survey, Local Contribution	75,000	74,712	—	—	288	

DEVELOPMENT PLAN SCHEMES — SARAWAK FUNDS—(Contd.)

Title of Scheme	Total Estimated cost of scheme	Actual expenditure to 31.12.56	Estimated expenditure 1957	Balance of Scheme	Transferred to recurrent budget from 1.1.54
Anti-Malaria Work ...	\$ 4,000,000	\$ 381,655	\$ 750,000	\$ 2,868,345	
Sibu Hospital extension ...	1,294,000	507,137	677,000	109,863	
Sarikei Hospital ...	220,000	—	145,000	75,000	
Simanggang Hospital extension ...	1,173,946	22,022	800,000	351,924	
Kuching Hospital ...	482,180	162,034	158,828	161,318	
Miri Hospital ...	550,000	—	550,000	—	
Mental Hospital ...	758,000	173,694	433,000	151,306	
Dispensaries ...	312,780	97,512	150,000	65,268	
Rural Sanitation Pilot Scheme ...	20,000	—	20,000	—	
	(10,634,647)	(2,431,116)	(4,037,928)	(4,165,603)	
METEOROLOGICAL					
Meteorological Service ...	135,000	18,739	—	116,261	
PORT DEVELOPMENT					
Gunong Ayer ...	1,000,000	450,200	—	549,800	
Sibu ...	2,300,000	1,725,394	421,585	153,021	
Miri Port Development ...	170,000	85,913	84,087	—	
Kuching Port Development ...	5,750,000	627,788	1,000,000	4,122,212	
Kuala Baram Wharf ...	117,500	18,281	50,000	49,219	
Minor Wharfage ...	441,000	60,655	281,500	98,845	
Brooke Dockyard ...	800,000	228,552	419,400	152,048	
Sarikei Wharf ...	907,400	12	30,000	877,388	
Simanggang Wharf & Equipment ...	200,000	—	200,000	—	
	(11,685,900)	(3,196,795)	(2,486,572)	(6,002,533)	
RESEARCH & INVESTIGATIONS					
Preliminary Surveys (P.W.D.) ...	74,000	33,173	22,412	18,415	
Grading Timber ...	4,800	2,469	—	2,331	
Survey of Electricity Supply Problems ...	15,000	9,818	—	5,182	
Plateau Area Investigations ...	5,000	5,000	—	—	

Completed

Road Reconstruction Programme ...	12,104,317	286,350	267,944	14,700	3,706	Completed
Oil Storage Depot, Bukit Biawak, Kuching ...	...	45,000	43,033	—	1,967	Completed
Oil Storage Depot, Sungei Merah, Sibü ...	...	8,746	8,746	—	—	Completed
Preliminary Surveys for Secondary Road ...	...	100,000	—	25,000	75,000	Completed
Simanggang-Sibü Road Survey ...	...	157,723	157,723	—	—	Completed
Kuching-Serian Road (Sarawak Contribution) ...	...	306,509	306,509	—	—	Completed
Survey Serian/Simanggang Road ...	...	22,000,000	147,952	3,000,000	18,852,048	Completed
Serian/Simanggang Road ...	...	66,918	66,918	—	—	Completed
Access Road to Kuching Airport ...	...	90,000	88,224	—	1,776	Completed
Miri/Bekenu Road (Brighton Road Section) ...	...	4,500,000	116,311	450,000	3,933,689	Completed
Road, Sarikei/Binatang ...	...	749,000	191,801	200,000	357,199	Completed
Secondary Roads, Fifth Division ...	...	3,000,000	826,037	733,800	1,440,163	Completed
Minor Roads & Paths ...	...	100,000	18,172	50,000	31,828	Completed
Batu Kitang Bridge Preliminary investigation ...	...	840,900	—	400,000	440,900	Completed
Senah Negri & Tebedu Roads ...	...	(51,413,663)	(14,916,200)	(7,528,065)	(28,969,398)	Completed
SOCIAL WELFARE						
Girls Home ...	260,150	—	—	260,150	—	Completed
TELECOMMUNICATIONS						
Survey of Telecommunications Plan ...	10,540	10,540	10,540	—	—	Completed
V.H.F. Radio/Telephone ...	4,968,100	4,486,733	4,486,733	421,372	59,995	Completed
Multi-Channel V.H.F. Radio ...	2,000,000	174,735	174,735	1,000,000	825,265	Completed
Telephone Exchange, Kuching ...	1,346,679	1,303,465	1,303,465	30,000	13,214	Completed
Extension Telephone Exchange, Kuching ...	781,240	57,749	57,749	723,491	—	Completed
Telephone Exchange, Sibü ...	629,480	389,529	389,529	228,386	11,565	Completed
Telephone Exchange, Miri ...	637,032	259,764	259,764	372,530	4,738	Completed
Improvement of W/T Service at Simanggang ...	11,700	11,259	11,259	—	441	Completed
Outstation Telephone System ...	425,000	356,581	356,581	38,000	30,419	Completed
H. F. Telephone Links to Ulu Areas ...	20,000	—	—	20,000	—	Completed
Contingencies ...	19,441	16,210	16,210	3,231	—	Completed
Aeronautical Telecommunications ...	841,305	614,633	614,633	216,963	9,709	Completed
	(11,690,517)	(7,681,198)	(7,681,198)	(3,053,973)	(955,346)	Completed
SCIOIOLOGICAL RESEARCH						
Sarawak Contribution to Colonial Development and Welfare Scheme R.270 ...	8,015	7,800	7,800	—	215	Completed

A

DEVELOPMENT PLAN SCHEMES — SARAWAK FUNDS—(Contd.)

<i>Title of Scheme</i>	<i>Total Estimated cost of scheme</i>	<i>Actual expenditure to 31.12.56</i>	<i>Estimated expenditure 1957</i>	<i>Balance of Scheme</i>	
	\$	\$	\$	\$	
TOWN DEVELOPMENT					
Limbang Bazaar	154,700	145,817	4,151	4,732	
Bekenu Bazaar	98,600	92,177	—	6,423	
Simanggang Bazaar	169,433	169,433	—	—	
Sibu Bazaar	1,220,000	743,354	360,000	116,646	
Miri Bazaar	300,000	102,310	50,000	147,690	
Kampong Gita, Kuching	722,095	502,817	175,493	43,785	
Simunjan Bazaar	175,000	18,111	100,000	56,889	
Panchor Bazaar	28,000	276	—	27,724	
Lawas Bazaar	174,000	6,992	100,000	67,008	
Marudi Bazaar	195,300	—	65,000	130,300	
Saratok Bazaar	200,000	—	50,000	150,000	
Maong Bazaar	145,000	—	70,000	75,000	
Sewerage Schemes (preliminary design)	160,000	—	60,000	100,000	
Bazaar Drains	500,000	75,919	127,940	296,141	
Bazaar Roads, Second Division	250,000	21,844	50,000	178,156	
	(4,492,128)	(1,879,050)	(1,212,584)	(1,400,494)	
WATER SUPPLIES					
Batu Kitang Scheme, Kuching	3,300,000	3,279,796	20,204	—	Completed
Sungei China Pipeline, Kuching	340,608	340,608	—	—	
Simunjan	69,000	68,734	—	266	
Sarikei and Binatang	999,780	754,197	139,123	106,460	
Bau	60,000	54,828	—	5,172	
Miri	453,500	367,695	85,805	—	
Limbang (Improvements)	21,000	15,022	—	5,978	
Sibu (Extensions)	720,000	416,786	143,868	159,346	
Lawas	88,000	35,069	28,000	24,931	



Simanggang air-strip, in the Second Division: a bulldozer dragging uprooted trees from the strip. Standing jungle in the background shows the kind of vegetation which had to be cleared



Reconstruction in progress at Simanggang Bazaar. New shophouses are being erected and the older ones nearer the river have been re-roofed. The picture is taken from the top of the Post and Telegraphs Department's 150-foot VHF tower

A

Song	82,000	—	—	—	82,000
Renewal of Mains, Kuching	881,000	101,609	220,000	559,391	—
7th Mile Bazaar, Kuching ...	29,900	27,197	2,703	—	7,306
Mukah Waterworks	8,000	694	—	150,000	205,068
Simanggang	460,000	104,932	874	53,126	—
Lundu	54,000	—	30,000	74,000	100,000
Marudi	104,000	—	—	25,000	—
Serian	100,000	—	—	—	55,412
Bintulu	25,000	11,588	12,000	—	—
Reconstruction Labuan Store	67,000	—	174,800	—	—
Santubong	12,000	—	(1,204,629)	(1,617,330)	—
Establishment of Metered System	174,800	—	—	—	—
	(8,401,588)	(5,579,629)	—	—	—
WATERWAYS					
Sungei Kut Canal	400,000	309,403	90,597	—	—
Baram District (blasting of rocks in rapids) ...	143,200	102,548	40,000	652	—
River Works (Anti-erosion Works)	899,199	57,861	99,000	742,338	—
Hydrographic Survey	50,000	28,625	19,867	1,508	—
Aikman Canal improvements-preliminary works	12,000	—	12,000	—	—
	(1,504,399)	(498,437)	(261,464)	(744,498)	—
DEVELOPMENT STAFF					
Agricultural and Engineer Officers	1,930,916	774,457	1,025,340	131,119	—
PLANT AND EQUIPMENT					
P.W.D. Plant Equipment	1,571,996	1,009,789	492,730	69,477	—
Total Development Plans Schemes —Sarawak Funds.	158,153,345	53,984,243	31,786,679	72,382,423	—

<i>Title of Scheme</i>	<i>Total Estimated cost of scheme</i>	<i>Actual expenditure to 31.12.56</i>	<i>Estimated expenditure 1957</i>	<i>Balance of Scheme</i>	
	\$	\$	\$	\$	
HOUSING LOANS					
Loans for rebuilding of shophouses ...	1,256,371	1,035,947	161,568	58,856	
Civil Servants Housing Loan ...	670,000	395,450	100,000	174,550	
	(1,926,371)	(1,431,397)	(261,568)	(233,406)	
MARINE					
General Purpose Launches (1953 Programme) ...	730,000	723,158	—	6,842	Completed
Ocean Going Despatch vessel ...	500,000	499,057	—	943	
	(1,230,000)	(1,222,215)		(7,785)	
MISCELLANEOUS					
Dayak Rest Houses ...	60,000	29,194	30,094	712	
Provision of Recreational Facilities ...	250,000	142,957	62,355	44,688	
	(310,000)	(172,151)	(92,449)	(45,400)	
PUBLIC WORKS					
A. BUILDINGS					
General—					
Police Rehousing Scheme ...	1,559,760	1,541,491	17,969	300	
Furniture for Government Housing 1951/52 Programme & Arrears ...	511,633	511,633	—	—	
Furniture for Government Housing—1953 Programme ...	163,500	151,168	—	12,332	
Kuching—					
Additional Buildings—Sarawak Museum	335,000	263,121	—	71,879	
Rounded Warehouse	73,956	72,389	—	1,567	

Quarters—1954 Programme	...	...	100,000	65,352	17,000	17,648
Chief Secretary's House	...	...	227,500	223,703	—	3,797
Service Quarters—1953 Programme	...	...	1,429,670	1,295,937	—	133,733
Service Quarters—1954 Programme	...	...	1,048,346	1,048,346	—	—
Relocation Pending Station	...	...	105,000	91,259	—	13,741
Kuching Telephone Exchange	...	...	80,000	80,000	—	—
First Division						
Service Quarters—1954 Programme	...	...	193,590	192,319	—	1,271
Second Division						
Service Quarters—1954 Programme	...	...	235,000	192,044	21,031	21,925
Third Division						
Pontoons for Sarikei Wharf	...	...	155,000	50,413	104,587	—
Development Housing Area for Quarters—1954 Programme	...	...	176,932	176,932	—	—
Service Quarters—1954 Programme	...	...	902,750	881,240	—	21,510
Government Offices, Mukah	...	...	72,000	71,687	—	313
Wharf & Retaining Wall, Mukah	...	...	83,000	17,532	62,034	3,434
Fourth Division						
Service Quarters—1953 Programme	...	...	169,950	166,284	—	3,666
Service Quarters—1954 Programme	...	...	577,207	577,207	—	—
Bazaar Roads & Drains	...	...	42,000	41,824	—	176
Fifth Division						
Service Quarters—1954 Programmes	...	...	75,600	69,597	—	6,003
B. PLANT VEHICLES & EQUIPMENT						
Road Machinery etc.—1951/53 Programme	...	...	1,297,900	1,251,702	—	46,198
Road Machinery etc.—1954 Programme	...	...	138,000	127,130	—	10,870
Land Transport—1954 Programme	...	...	83,500	75,032	—	8,468

SUPPLEMENTARY PROJECTS — SARAWAK FUNDS—(Contd.)

<i>Title of Scheme</i>	<i>Total Estimated cost of scheme</i>	<i>Actual expenditure to 31.12.56</i>	<i>Estimated expenditure 1957</i>	<i>Balance of Scheme</i>
	\$	\$	\$	\$
C. WATER SUPPLIES				
Relaying Matang Pipeline	1,391,000 (11,336,694)	1,053,020 (10,290,755)	253,940 (476,561)	84,040 (569,378)
TREASURY				
Statistical Machine (Customs Department) ...	110,000	109,004	—	996
Accounting Machinery (Government Stores and Public Works Department)	40,000 (150,000)	39,508 (148,512)	— —	492 (1,488)
Other Completed Supplementry Projects ...	8,230,701	8,230,701	—	—
Total Supplementary Projects— Sarawak Funds	23,183,766	21,495,731	830,578	857,457

B

OFFENCES	Total cases known or reported to the Police	Cases not accepted		Disposal of accepted cases							Under investi- gation or Pending trial
		Complaint due to mistake of law or fact	Trivial, Frivolous, vexatious or false complaint	Total	Accused, dead or insane	Acquitted or discharged	Nolle prosequi	Convicted	Cases proved and order made without conviction	Closed undetected	
Against lawful authority											
Against public order	51		1	50		1		45	1		3
Perjury	5			5				5			
Escape and rescue	9	2		7				6		1	
Against public morality											
Rape and indecent assault	9	1	1	7	1	3		3			1
Unnatural offences											
Other	9	1	1	7		4		3			
Against the person											
Murder and manslaughter	26		1	25		3		7		1	13
Attempted murder and attempted suicide	22	7	2	13		1		7			2
Grievous harm, wounding etc.	107	3	13	91		12		59	3	2	14
Assaults	524		477	47		6		29	1	6	5
Other	48	3	25	20		4		10	2	2	2
Against Property											
Thefts and other stealings	42	67	11	864		38		175	15	526	110
Robbery and extortion	0	3		7				2		4	1
Burglary, house and store breaking	80		1	79		3		13	2	46	15
False pretences, cheating fraud etc.	71	5	5	61		5		22	2	21	11
False pretences, cheating, fraud etc.	6	1		5		2		3			
Arson	3			3				1		2	
Other	54	4	6	44		3		15	2	19	5
All other offences against Penal Code											
Forgery and coinage	4			4				2			2
Other	279	8	95	176		14		83	1	65	13
Totals	2,259	105	639	1,515	1	99		490	33	695	197

SARAWAK

PROSECUTIONS BY THE POLICE IN RESPECT OF STATUTORY OFFENCES, FOR THE YEAR 1956.

OFFENCES	Number of Cases				Number of Persons Convicted									
	Total	Convicted	Discharged	Pending (b)	Total				Imprisonment		Corporal Punishment		Fine	
					M	F	Juv. (c)		M	F	M	F	M	F
							M	F						
Against Traffic Ordinance	6,046	3,962	1,543	559	3,804	29	110	17					3,804	29
Against Municipal Ordinance	230	198	12	20	199	8		3					199	8
Against Dangerous Drugs Ordinance	91	80	6	5	114	4	8	1					106	3
Gambling	65	53	8	4	149	8	1						148	8
Other Offence	704	564	99	41	748	14	100	2					648	12
Total	1,754	4,857	1,668	629	5,014	63	113	17	109	3			4,905	60
													113	17

B

SARAWAK ELECTRICITY SUPPLY COMPANY LIMITED
POSITION AT 31ST DECEMBER, 1956

Township or Location	Supply AC/DC	KW. Installed Capacity (Site Rating)	M.D. on Station	Units Generated Jan.—Dec. 1956	System Load Factor Jan.—Dec. 1956	Units Sold Jan.—Dec. 1956	Number of Consumers at Dec. 1956	Daily Supply Period (Hours)	Remarks
Kuching	AC	2,319	1,717	6,117,265	34.51%	5,204,862	4,020	24	New set being added
Sibu	AC	715	575	2,014,294	34.28%	1,731,514	1,570	24	New set being added
Miri	DC	330	282	644,092	20.22%	500,763	559	24	Converting to A.C.
Miri	AC	176	87.5	225,605	24.33%	187,027	156	24	Adding New set
Sarikei	AC	172	101	193,892	27.35%	166,830	251	24	
Limbang	AC	68	44	69,555	29.62%	63,217	168	13½	
Marudi	AC	50	38	56,440	28.56%	50,980	139	13	
Bintulu	DC	44	38	75,979	24.61%	65,891	135	13	New set being added
Mukah	DC	70	46.5	96,763	31.54%	91,248	149	17	New set ordered
Binatang	DC	68	57	96,679	30.36%	81,289	150	13	To convert to A.C. 57
Kanowit	AC	47	47	54,084	21.62%	47,739	117	13	High Peak due to Regatta
Betong	DC	50	35.6	52,582	24.57%	41,085	118	13	
Simanggang	DC	68	66.0	100,713	28.13%	87,226	197	13	To convert to A.C. 1957
Serian	AC	42.5	30.6	39,890	23.97%	34,458	89	13	
Bau	AC	50	40	53,416	22.68%	42,614	116	13	
10th Mile	AC	12	6	9,016	27.48%	7,745	31	13	
7th Mile	AC	738	250	6,498	New Station	4,555	38	14	24 hour supply early 1957. Commenced supply 5.11.56

All Alternating Current Supplies are 230/400 Volts, 50 Cycles, 3 Phase, 4 Wire.

All Direct Current Supplies are 230/460 Volts, 3 Wire.

SARAWAK

CLIMATOLOGICAL SUMMARY, YEAR 1956.

STATION: MIRI.

HEIGHT OF STATION 9-86 feet above M.S.L.

LATITUDE: 4° 23' E.

LONG: 113° 59' E.

1956	Mean 0800 hr: Air Pressure at M.S.L.	AIR TEMPERATURE IN °F										RAINFALL			NUMBER OF DAYS.					BRIGHT SUNSHINE.				EARTH TEMPERATURE		
		ABSOLUTE EXTREMES								Total Inches	Most in a Day.		Precipitation	Thunderstorm	Thunder Heard	Fog	Gale	Total Hours	Daily Mean	Per Cent	Length of Day	°F	°F			
		MEANS OF		Mean of "A" & "B"	Highest	Date	Lowest	Date	Highest		Date															
		"A"	"B"																							
	mb										INS							HRS	HRS		HRS					
	1010-1	84.6	72.8	78.7	87.4	9	70.0	19	80.5	11	74.7	27	13.82	2.24	16	21	4	7	1	—	153.25	4.94	42	11.85	82.8	—
FEB.	1009.8	85.9	74.0	79.9	89.4	24	71.8	10	80.9	9	77.0	26	20.08	7.42	8	18	3	7	3	—	195.80	6.75	36	11.95	83.5	—
MAR.	1011.7	86.6	74.0	80.3	89.5	28	71.0	2	83.2	17	75.8	26	8.81	3.56	22	20	5	11	4	—	229.25	7.39	61	12.07	84.5	—
APR.	1010.0	88.5	74.6	81.5	91.5	23	71.5	3	83.6	28	77.4	26	2.53	0.63	27	11	6	15	1	—	209.05	6.97	57	12.18	84.5	—
MAY	1009.8	87.8	74.5	81.1	91.5	5	72.2	30	80.6	21	76.3	4	6.59	1.54	17	14	4	7	1	—	199.95	6.45	53	12.28	83.1	—
JUNE	1010.3	87.7	74.1	80.9	93.1	7	70.2	29 & 30	82.8	29	77.2	21	16.56	4.08	17	17	5	9	—	—	201.45	6.71	54	12.33	82.3	—
JULY	1010.4	86.8	73.7	80.3	89.2	9	70.3	1	81.6	25	75.8	12 & 13	8.66	1.79	23	16	6	13	—	—	223.80	7.22	59	12.32	82.2	—
AUG.	1010.0	86.7	73.7	80.2	89.2	15	71.0	27	80.6	24	76.2	14 & 31	10.66	2.03	26	15	3	9	—	—	177.30	5.72	47	12.22	81.2	—
SEP.	1010.6	87.0	74.0	80.5	89.9	2	72.0	8	82.0	28	76.4	18	20.26	2.80	13	21	7	10	—	—	181.80	6.06	50	12.10	82.9	83.9
OCT.	1011.0	85.5	73.5	79.5	89.2	6	70.6	8	80.8	18	76.0	29	15.74	2.50	12	27	—	7	—	—	177.35	5.72	48	11.98	82.3	83.6
NOV.	1011.3	85.5	73.7	79.6	88.7	13	71.8	9	77.0	16	75.5	14	18.52	4.46	16	21	4	5	1	—	177.15	5.91	50	11.88	82.3	83.3
DEC.	1010.7	84.7	73.3	79.0	87.8	7	69.0	31	79.4	25	75.2	See	11.47	1.73	7	26	2	3	1	—	146.90	4.74	40	11.83	81.1	82.7
TOTAL	—	—	—	—	—	—	—	—	—	—	—	—	153.04	—	—	227	49	103	12	—	2,273.05	—	—	—	—	—
Means of Extremes	1010.5	86.4	73.8	80.1	93.1	7th June	69.0	31st Dec.	77.0	16th Nov.	77.4	26th Apr.	—	7.42	8th Feb.	—	—	—	—	—	189.42	6.21	—	—	82.7	83.4

SARAWAK
CLIMATOLOGICAL SUMMARY, YEAR 1956.
STATION: BINTULU.

LATITUDE: 3° 11' N.
LONG : 113° 59' E.

HEIGHT OF STATION 10 Ft. ABOVE M.S.L.

APPENDIX
D

1956	Mean 0800 hr. Air Pressure at M.S.L.	AIR TEMPERATURE IN °F								RAINFALL			NUMBER OF DAYS.					BRIGHT SUNSHINE.				EARTH TEMPERA- TURE				
		MEANS OF		ABSOLUTE EXTREMES.						Total Inches	Most in a Day.		Precipitation	Thunderstorm	Thunder Heard	Fog	Gale	Total Hours	Daily Mean	Per Cent	Length of Day	At 1 Foot	At 4 Feet			
				Highest Max.	Date	Lowest Min.	Date	Lowest Max.	Date		Highest Min.	Date														
		"A" Maximum	"B" Minimum	Mean of "A" & "B"	Highest Max.	Date	Lowest Min.	Date	Lowest Max.	Date	Highest Min.	Date														
JAN.	mbs 1010.0	86.5	72.0	79.3	90.0	9	69.3	19	80.0	24	74.1	27	13.54	INS 3.68	9	22	—	2	3	—	HRS 134.30	HRS 4.33	36	11.95	°F —	°F —
FEB.	1009.8	85.6	72.8	79.2	90.2	23	70.8	10	81.8	9	74.9	16	15.27	5.84	2	18	5	4	5	—	162.80	5.61	47	11.98	—	—
MAR	1010.7	86.4	73.2	79.8	89.7	20	71.2	11	84.3	24	75.8	22	4.78	2.53	14	16	6	12	10	—	121.80	6.18	51	12.07	—	—
APR.	1009.7	89.0	73.6	81.3	92.8	28	70.1	4	84.8	26	75.8	26	3.16	1.49	2	13	5	8	—	—	209.85	6.99	57	12.15	—	—
MAY	1009.6	89.2	73.6	81.4	94.0	11	71.2	17	82.2	26	76.1	13	6.42	1.69	15 & 17	14	5	6	1	—	231.70	7.47	61	12.21	—	—
JUN.	1010.3	87.8	72.7	80.3	91.6	5	67.8	7	83.0	18	75.2	1	16.00	3.54	22	19	1	9	3	—	160.45	5.35	44	12.27	—	—
JUL.	1010.4	87.3	72.4	79.9	90.8	7	69.8	1	80.9	25	75.8	17	10.01	1.80	19	14	5	17	2	—	193.30	6.23	51	12.25	—	—
AUG.	1010.1	88.0	72.9	80.5	91.8	6	69.6	11	84.6	9	76.3	16	7.53	1.21	12.	19	6	11	4	—	145.95	4.71	39	12.18	—	—
SEP.	1010.4	87.9	72.6	80.5	91.0	8	70.2	28	83.2	28	74.0	Ser.	16.49	4.15	27	20	6	11	3	—	177.75	5.93	49	12.10	84.1	84.4
OCT.	1011.0	85.9	73.0	79.5	89.6	26	70.3	4	80.2	16	75.1	31	15.48	2.64	6	24	1	9	3	—	170.85	5.51	46	12.02	83.1	83.9
NOV.	1011.2	85.9	73.0	79.5	91.6	25	71.1	9	78.0	17	74.8	24	25.01	4.67	6	22	7	9	7	—	155.30	5.18	43	11.95	82.7	83.6
DEC.	1010.6	85.5	72.5	79.0	88.7	18	69.2	31	82.8	26	74.8	5	18.58	3.91	24	25	5	8	7	—	153.80	4.96	42	11.92	81.8	82.9
Total	—	—	—	—	—	—	—	—	—	—	—	—	152.27	—	—	226	52	106	48	—	2,087.75	—	—	—	—	—
Means or Extremes	1010.3	87.1	72.9	80.0	94.0	11th May	67.8	7th June	78.0	17th Nov.	76.3	16th Aug.	—	5.84	2nd Feb.	—	—	—	—	—	172.99	5.70	—	—	82.9	83.7

SARAWAK CLIMATOLOGICAL SUMMARY, YEAR 1956.

HEIGHT OF STATION 84 Ft. ABOVE M.S.L.

STATION KUCHING

LATITUDE 1° 29' N Long. 110° 20' E

1956	Mean 0800 hr. Air Pressure At M.S.L.	AIR TEMPERATURE IN °F										RAINFALL			NUMBER OF DAYS					BRIGHT SUNSHINE				EARTH TEMPERA- TURE	
		ABSOLUTE EXTREMES										Total Inches.	MOST IN A DAY		Precipitation	Thunderstorm	Thunder Heard	Fog	Gale	Total Hours	Daily Mean	Per Cent	Length of Day	At 1 ft.	At 4 ft.
		Highest Max.	Date	Lowest Min.	Date	Lowest Max.	Date	Highest Min.	Date																
										Mean of "A" & "B"	MEAN OF "A" Maximum "B" Minimum														
JAN.	mbs 1009.8	84.5	70.7	87.8	12	66.7	20	74.0	14	73.0	28	15.29	INS	2.94	29	5	7	4	—	HRS 131.35	HRS 4.24	35	12.02	79.6	82.7
FEB.	1009.9	85.9	71.8	90.9	23	68.4	4	79.6	1	74.8	17	8.48	1.05	20	3	5	1	—	—	HRS 153.15	HRS 5.28	44	12.05	80.5	83.2
MAR.	1011.0	86.9	72.0	89.7	28	68.6	23	83.3	1	74.2	3	9.02	3.74	4	5	9	2	—	—	HRS 156.60	HRS 5.05	42	12.07	81.7	83.9
APR.	1009.7	90.1	72.4	93.0	29	70.3	10	83.0	27	74.5	16	10.05	2.44	24	15	12	15	4	—	HRS 201.80	HRS 6.73	55	12.12	82.7	85.5
MAY	1009.5	89.1	72.5	93.9	15	70.7	27	81.4	18	74.2	17	11.21	1.87	1	13	19	3	—	—	HRS 191.50	HRS 6.18	51	12.15	83.5	85.9
JUN.	1010.2	87.9	71.4	93.0	6	66.4	17	79.5	22	74.8	8	6.68	1.38	14	7	10	3	—	—	HRS 172.05	HRS 5.73	47	12.18	82.4	85.2
JUL.	1010.5	88.2	71.7	93.0	2	70.0	7	81.0	23	73.4	19	10.05	2.27	21	20	9	12	2	—	HRS 192.60	HRS 6.21	51	12.15	82.1	85.3
AUG.	1010.0	88.5	71.6	92.3	7	67.2	11	78.1	9	75.2	29	7.78	1.26	10	17	11	14	—	—	HRS 168.95	HRS 5.45	45	12.12	82.7	84.7
SEP.	1010.3	87.7	71.9	92.3	20	70.1	21	79.5	30	73.6	24	12.67	3.32	2	23	12	15	1	—	HRS 138.80	HRS 4.63	38	12.08	83.3	84.5
OCT.	1010.8	87.6	71.6	91.0	25	69.4	5	81.2	9	73.8	23	12.38	1.47	17	25	7	12	4	—	HRS 157.00	HRS 5.06	42	12.05	83.2	84.4
NOV.	1011.2	86.6	71.9	90.3	25	68.2	11	81.8	16	74.0	4	17.97	2.76	20	25	9	11	7	—	HRS 127.45	HRS 4.25	35	12.02	82.6	84.0
DEC.	1010.7	84.6	71.5	90.0	17	68.8	31	77.1	25	73.5	7 & 25	17.40	2.98	19	24	2	3	3	—	HRS 105.75	HRS 3.41	35	11.98	81.8	83.2
TOTAL Means or Extremes	—	—	—	—	—	—	—	—	—	—	—	138.98	—	—	241	95	132	34	—	HRS 1,827.00	—	—	—	—	—
	1010.3	87.3	71.7	93.9	15th May	66.4	17th June	74.0	14th Jan.	75.2	29th Aug.	—	3.74	4th Mar.	—	—	—	—	—	HRS 158.08	HRS 5.19	—	—	82.2	84.4

E

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Sir Anthony Foster Abell, K.C.M.G.

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- „ Mr. Tan Kui Choon, O.B.E.
- „ Mr. G. E. Strickland, Q.C.
- „ Dr. M. Sockalingam, O.S.S.
- „ Mr. F. G. Browne

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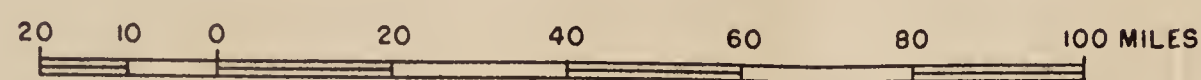
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Sketch Map showing SARAWAK GEOLOGY

SCALE 1:3,000,000 OR ABOUT 48 MILES TO ONE INCH



- Divisional Headquarters
- Other Settlements
- + - - - + International Boundary
- - - - - Divisional Boundary

SEDIMENTARY ROCKS

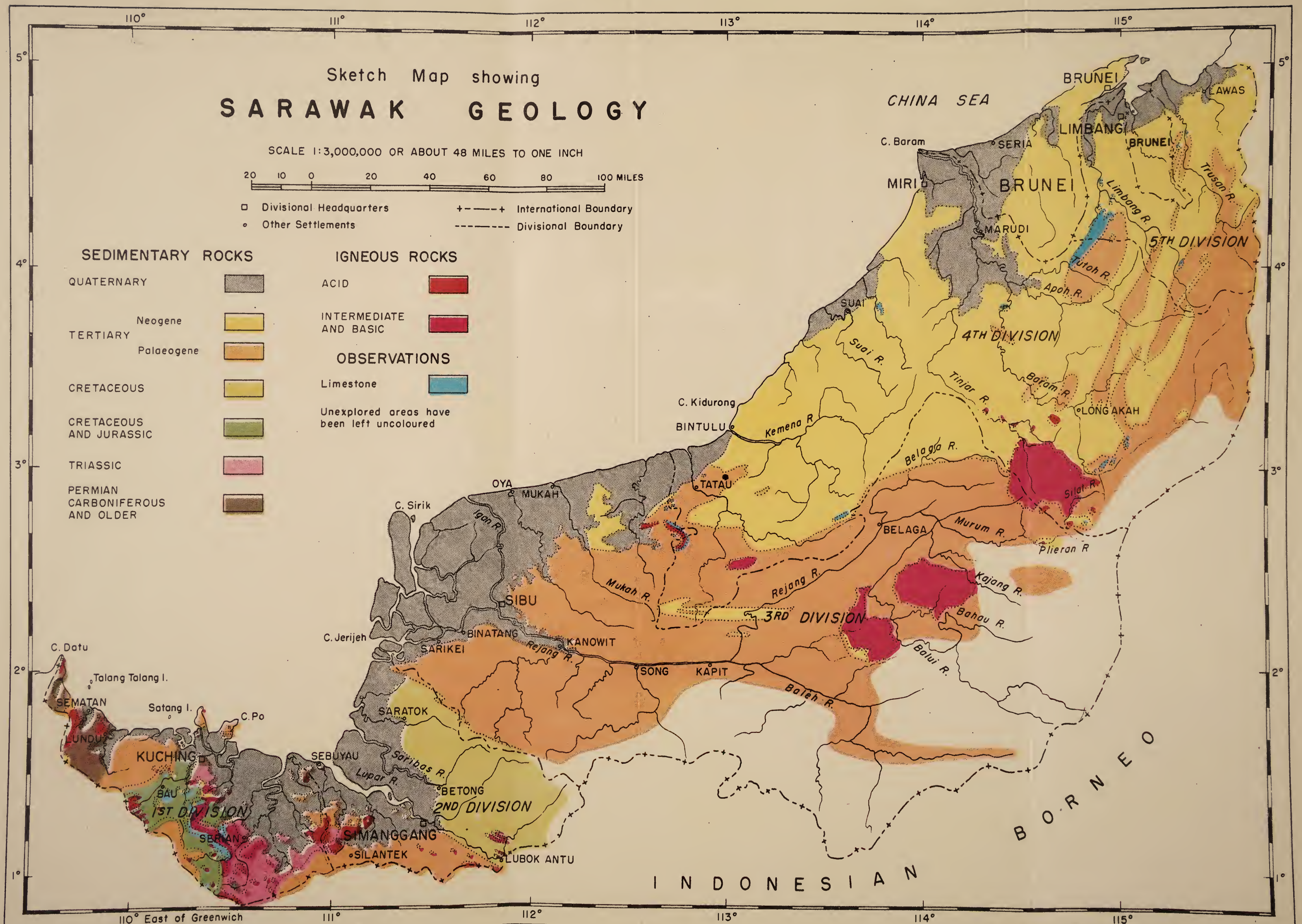
- QUATERNARY
- TERTIARY
 - Neogene
 - Palaeogene
- CRETACEOUS
- CRETACEOUS AND JURASSIC
- TRIASSIC
- PERMIAN
- CARBONIFEROUS AND OLDER

IGNEOUS ROCKS

- ACID
- INTERMEDIATE AND BASIC

OBSERVATIONS

- Limestone
- Unexplored areas have been left uncoloured





SARAWAK SERIES No. 7 Second Edition
Compiled and drawn by Land and
Survey Dept., Sarawak March 1953.

LEGEND

Road, Main	.....	River Surveyed	.....
Road, Secondary	.....	River, Unsurveyed	.....
Footpath	.....	Swamp	.....
Railway, Single Track	.....	Depth Line 10 Fathoms	.....
Headquarters, Division	.....	Sandbank	.....
Headquarters, District	.....	Heights	.....
Government Station	.....	Contours, Approximate	.....
Government Station and Bazaar	.....	Boundary, International	.....
Other Town	.....	Boundary, Division	.....
W/T Station	.....	Boundary, District	.....
Telephone Line	.....	Airfield, Lighthouse	.....

Scale 1:1,000,000 or 15.78 Miles to One Inch



HEIGHTS IN FEET

ALTITUDE TINTS

OVER 4000 FEET

2000 FEET

1000 FEET

500 FEET

100 FEET

SEA LEVEL

GLOSSARY

Bukit	.....	Hill
Basang	.....	Big
Gunong	.....	Apo or Aped
Kuala	.....	Mouth of River
Login	.....	Ox-bow; Abandoned Reach of River; or sometimes Swampy Lake
Muara	Mouth of River
Pulau	Island
Sungai	S. Pa
Tanjong	Bay
Ulu	Headwaters

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